Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

Edition : 10.05.96 Test oil : ISO 4113

Combination No. : 0 402 648 920

Injection pump

Pump designation : PE8P120A320LS7844 EP type number : 0 412 628 860

Governor

Governer design. : RQV350...1050PA870

: -16

Governer no. : 0 421 813 953

Cust. part No. :

Customer-spec. information
Customer : MB-NFZ
Motor : 0M442 LA
Power KW : 370.0

TEST BENCH REQUIREMENTS

Inlet line : 3.1

Test oil inlet

temp. °C : 40 Tolerance °C : +- 2.0

Overflow valve : 1 417 413 025

Inlet press. bar : 1.5
Tolerance bar : + 0.1

Overflow quantity

min. l/h : 110 Tolerance l/h : +- 10.0

Test nozzle holde

assembly : 1 688 901 105

Opening pressure

bar : 208.5 Tolerance bar : + 1.5 Test lines : 1 680 750 075

Outside diameter : 8.0

x inside diameter : 2.5 x length mm : 1000

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values _____

BEGINNING OF DELIVERY

Test pressure bar : 26.0 Tolerance bar : + 1.0

Prestroke mm : 5.05
Tolerance mm : + 0.05

Check

tolerance mm : +- 0.10

Rack travel in mm : 20.50 Tolerance mm : + 0.50

Firing order : 8-7-2-6-3

: - 5- 4- 1

Phasing : 0-45-90-135-180

: -225-270-315 Tolerance : +- 0.30

Check

tolerance *NW : + 0.50

Start of delivery mark

Barrel no. : 8

CRT ZERO POSITION

Rack travel in mm : 14.30 Tolerance mm : ← 0.10

BASIC SETTING

Rated speed rpm : 600

A01

Rack travel in mm Tolerance mm	n: 14.30 :+- 0.10
Del. quantity cm3/1000 strokes	: 257.5
cm3/1000 strokes	: + 1.0
Check tolerance cm3/1000s.	: +- 4.0
Spreed cm3/1000 strokes	: 5.0
Check tolerance cm3/1000s.	: 9.0
Rated speed rpm	: 350
Rack travel in mm Tolerance mm Del. quantity	3 : 5.00 : ← 0.10
cm3/1000 strokes cm3/1000 strokes	
Check tolerance cm3/1000s.	: ← 6.0
Spreed cm3/1000 strokes	: 6.0
Check tolerance cm3/1000s.	: 10.0
(B) SETTING OF IN WITH GOVERNOR	JECTION PUMP
GUIDE SLEEVE TRAV	EL
Rated speed rpm guide sleeve	: 350
travel mm Tolerance mm	: 1.55 : + 0.25
Rated speed rpm guide sleeve	: 1108
travel mm Tolerance mm	: 8.05 : +- 0.25
Rated speed rpm guide sleeve	: 570
travel mm Tolerance mm	: 3.55 : +- 0.25
Rated speed rpm	: 900
guide sleeve travel mm Tolerance mm	: 5.65 : + 0.25

Rated speed rpm guide sleeve travel mm Tolerance mm	: 1204 : 10.05 : + 0.25
GUIDE SLEEVE POSI	TION
Rated speed rpm	: 1125
Rack travel in mm Tolerance mm	: 17.25 : +- 0.75
FULL LOAD DELIVER	Y AT FULL LOAD STOP
Rated speed rpm Aneroid pressure	: 600
hPa Del. quantity	: 1100
cm3/1000 strokes	
Check tolerance cm3/1000s.	: +- 4.0
Spreed cm3/1000 strokes	: 5.0
Check tolerance cm3/1000s.	: 9.0
control lever position degree tolerance degree RATED SPEED rack travel mm Rated speed rpm Tolerance 1/min rack travel mm Rated speed rpm Tolerance 1/min rack travel mm Tolerance 1/min rack travel mm Tolerance mm Rated speed rpm Rated speed rpm Rated speed rpm	: 119.0 : + 4.0 : 14.30 : 1095 : + 5 : 4.00 : 1195 : + 15 : 0.50 : + 0.50 : 1300
LOW IDLE	
control lever position degree tolerance degree	: 67.0 : +- 4.0

Testing:	
Rated speed rpm rack travel mm Tolerance mm	: 350 : 5.00 : + 0.10
Rated speed rpm	: 250
CRT mm min.	: > 6.60
Rated speed rpm	: 450
TORQUE CONTROL	
Rated speed rpm rack travel mm Tolerance mm	: 600 : 14.30 : + 0.10
Rated speed rpm rack travel mm Tolerance mm	: 1050 : 15.30 : + 0.10
Rated speed rpm rack travel mm Tolerance mm	: 800 : 15.30 : +- 0.10
ANEROID/ALTITUDE COMPENSATOR TEST	
COMPENSATOR TEST	
COMPENSATOR TEST	: 290 : -5.50 : +- 0.05
COMPENSATOR TEST MEASUREMENT Pressure hPa rack travel mm Tolerance mm Pressure hPa rack travel mm	: -5.50
COMPENSATOR TEST MEASUREMENT Pressure hPa rack travel mm Tolerance mm	: -5.50 : +- 0.05 : 780 : -1.30
COMPENSATOR TEST MEASUREMENT Pressure hPa rack travel mm Tolerance mm Pressure hPa rack travel mm Tolerance mm Pressure hPa rack travel mm Tolerance mm	: -5.50 : + 0.05 : 780 : -1.30 : + 0.10 : 1450 : 0.30
COMPENSATOR TEST MEASUREMENT Pressure hPa rack travel mm Tolerance mm Pressure hPa rack travel mm Tolerance mm	: -5.50 : + 0.05 : 780 : -1.30 : + 0.10 : 1450 : 0.30 : + 0.05 : 1550 : 0.70

80

: >

Check speed 1/min	: < 290
FUEL DELIVERY CHA	RACTERISTICS
Aneroid pressure hPa Rated speed rpm Del. quantity cm3/1000 strokes cm3/1000 strokes Check tolerance cm3/1000s.	: 1800 : 1050 : 272.0 : + 1.5 : +- 4.5
Aneroid pressure hPa Rated speed rpm Del. quantity cm3/1000 strokes cm3/1000 strokes Check tolerance cm3/1000s.	: 1800 : 800 : 274.0 : ← 2.0 : ← 5.0
Aneroid pressure hPa Rated speed rpm Del. quantity cm3/1000 strokes cm3/1000 strokes Check tolerance cm3/1000s.	: - : 500 : 130.0 : + 1.0 : + 4.0
BREAKAWAY	
Rack travel in mm Rated speed rpm Tolerance 1/min	: 14.30 : 1095 : +- 5
STARTING FUEL DEL	IVERY
Rated speed rpm Del. quantity cm3/1000 strokes cm3/1000 strokes Check tolerance cm3/1000s.	: 100 : 270.0 : + 10.0 : + 14.0
LOW IDLE	
Rated speed rpm Del. quantity cm3/1000 strokes	: 350 : 19.0

Check speed 1/min

cm3/1000 strokes : +- 3.0
Check tolerance
cm3/1000s. : +- 6.0
Spreed
cm3/1000 strokes : 6.0
Check tolerance
cm3/1000s. : 10.0

BOSCH INJ. PUMP TEST SPECIFICATIONS Outside diameter : 8.0 x inside diameter: 3.0 Note remarks x length mm : 600 Refer to Service Info for test and adjustment instructions. See microcard(s) W400/... **REMARKS** : 03.01.95 Edition Test oil : ISO 4113 Combination No. : 0 402 676 818 Injection pump Pump designation : PE6P120A320RS7326 (A) INJECTION PUMP SETTING VALUES EP type number : 0 412 626 915 Set equal delivery quant. per values _____ Governor Governer design. : RSV275...1000P1A573 Governer no. : 0 421 833 429 BEGINNING OF DELIVERY Test pressure bar : 26.0 Cust. part No. : 1265070/3 Tolerance bar : + 1.0 Prestroke mm : 5.35 Customer—spec. information : +- 0.05 Tolerance mm Customer : DAF : WS 268 L AG Check Motor Power KW : 268.0 tolerance mm : **←** 0.10 Rack travel in mm: 14.50 Tolerance mm : + 0.50 TEST BENCH REQUIREMENTS Inlet line : 3.2 Firing order : 1-5-3-6-2-Test oil inlet temp. °C 40 : 0-60-120-180-240 Phasing Tolerance °C : + 2.0 : -300 Tolerance : **←** 0.30 Check : + 0.50 Overflow valve : 1 417 413 025 tolerance *NW Start of delivery mark Inlet press. bar : 1.5 : ← 0.1 Tolerance : **←** 0.10 Tolerance bar Check Tolerance l/h : +- 10.0 tolerance °NW : **←** 0.75 : 1 Barrel no. Test nozzle holde : 1 688 901 105 assembly BASIC SETTING Opening pressure : 208.5 bar Tolerance bar : +- 1.5 Rated speed rpm : 850 Rack travel in mm: 14.95 Test lines : 1 680 750 089

A05

Tolerance mm	: +- 0.05	†
Del. quantity	275.0	+
cm3/1000 strokes	: 235.0	‡
cm3/1000 strokes	: + 1.0	1
Check tolerance		Ŧ
cm3/1000s.	: +- 4.0	‡
Spreed cm3/1000 strokes	: 5.0	+
	: 5.0	Ŧ
Check tolerance cm3/1000s.	: 9.0	‡
		+
Rated speed rpm	: 275	‡
Rack travel in mm	: 6.00	Ì
Tolerance mm	: + 0.10	+
Del. quantity	. 47.0	+
cm3/1000 strokes cm3/1000 strokes	: 17.0 : + 3.0	<u>†</u>
Check tolerance	. +- 3.0	I
cm3/1000s.	: +- 6.0	\downarrow
		1
		Т
cm3/1000 strokes	: 8.0	Ŧ
cm3/1000 strokes Check tolerance		+
cm3/1000 strokes Check tolerance cm3/1000s.	: 12.0	T + + + + + + + + + + + + + + + + + + +
cm3/1000 strokes Check tolerance cm3/1000s. (B) SETTING OF INJ WITH GOVERNOR	: 12.0 JECTION PUMP	T+++++++++++
Spreed cm3/1000 strokes Check tolerance cm3/1000S. (B) SETTING OF INJ WITH GOVERNOR GUIDE SLEEVE POSIT	: 12.0 JECTION PUMP	
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cm3/1000 strokes Check tolerance cm3/1000s. (B) SETTING OF INJ WITH GOVERNOR GUIDE SLEEVE POSIT Rated speed rpm Rack travel in mm Tolerance mm governor spring ore—tension click setting x	: 12.0 JECTION PUMP TION : 800 : 0.50 : +- 0.20 : 4.00	┖╋╇╇╇╋╋╇╇╇╇╇╇╇╇╇╇╇╇╇╇╇╇╇
cm3/1000 strokes Check tolerance cm3/1000s. (B) SETTING OF INJ WITH GOVERNOR GUIDE SLEEVE POSIT Rated speed rpm Rack travel in mm Tolerance mm governor spring ore—tension click setting x	: 12.0 DECTION PUMP FION : 800 : 0.50 : ← 0.20	┖╌╏╌╏╌╏╌╏╌╏╸╏╸╏╸╏╸╏╸╏╸╏╸╏╸╏╸╏╸╏╸╏╸╏╸ ╇ ╸╇╸╇╸╇ ╸╇ ╸╇
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cm3/1000 strokes Check tolerance Cm3/1000s. (B) SETTING OF INJ WITH GOVERNOR GUIDE SLEEVE POSIT Rated speed rpm Rack travel in mm Tolerance mm governor spring pre-tension click setting x FULL LOAD DELIVERY Rated speed rpm Aneroid pressure hPa Del. quantity cm3/1000 strokes cm3/1000 strokes	: 12.0 JECTION PUMP FION : 800 : 0.50 : \(\times 0.20 \) : 4.00 (AT FULL LOAD STOP : 850 : 1000 : 235.0	┖┤┤╇╇╃╅╇╇╇╇╇╇╇╇╇╇╇╇╇╇╇╇╇╇╇╇╇╇╇╇╇
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cm3/1000 strokes Check tolerance cm3/1000s.	: 5.0 : 9.0
CONTROL LEVER	
control lever position degree tolerance degree	: 107.0 : + 4.0
RATED SPEED	
rack travel mm Rated speed rpm Tolerance 1/min	: 13.95 : 1032 : + 8
rack travel mm Rated speed rpm Tolerance 1/min	: 4.00 : 1100 : + 15
rack travel mm Tolerance mm Rated speed rpm	: 0.85 : +- 0.55 : 1250
rack travel mm Rated speed rpm	: 4.00 : 1110
LOW IDLE	
control lever position degree tolerance degree	: 72.0 : + 4.0
Setting point w/o	ut bumper spring
Rated speed rpm rack travel mm	: 275 : 5.00

Testing:

Rated speed rpm : 275
rack travel mm : 6.00
Tolerance mm : + 0.10

rack travel mm : 2.00
Rated speed rpm : 360
Tolerance 1/min : + 30

TORQUE CONTROL

Rated speed rpm : 850 rack travel mm : 14.95 Tolerance mm : + 0.05

Rated speed rpm : 1000 rack travel mm : 14.90 : +- 0.10 Tolerance mm

ANEROID/ALTITUDE COMPENSATOR TEST

SETTING

Rated speed rpm : 600 Pressure hPa : 1000 rack travel mm : 14.95 : +- 0.05 Tolerance mm

MEASUREMENT

Pressure hPa rack travel mm : 12.10 : + 0.10 Rated speed rpm : 600

Rated speed rpm : 600

: 490 : 14.25 Pressure hPa : rack travel mm : : +- 0.05 Tolerance mm

Pressure hPa 280 : 280 12.90 rack travel mm : Tolerance mm : + 0.10

FUEL DELIVERY CHARACTERISTICS

Aneroid pressure

hPa 600 Rated speed rpm :

Del. quantity

cm3/1000 strokes : 159.0 cm3/1000 strokes : \leftarrow 1.0

Check tolerance

: +- 4.0 cm3/1000s.

BREAKAWAY

Rack travel in mm : 13.95 Rated speed rpm : 1032 Tolerance 1/min : +

LOW IDLE

Rated speed rpm : 275 Del. quantity

cm3/1000 strokes : 17.0 cm3/1000 strokes : +-3.0

Check tolerance cm3/1000s.

6.0

Spreed

cm3/1000 strokes : 8.0

Check tolerance

cm3/1000s. 12.0

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

Edition Test oil

: 07.04.95 : ISO 4113

Combination No. : 0 402 746 651

Injection pump

Pump designation : PES6P120A320RS7374 EP type number : 0 412 726 938

Governor

Governer design. : RQV350...900PA935-1

Governer no. : 0 421 813 820

Cust. part No. : 15 550 98 4T

Customer-spec. information Customer : BAUDOUIN : 6P15-2 Motor Power KW : 441.0

TEST BENCH REQUIREMENTS

Inlet line : 3.1

Test oil inlet

temp. °C Tolerance °C

Overflow valve : 1 417 413 025

Inlet press. bar : 1.5 Tolerance bar : + 0.1

Overflow quantity

min. L/h : 150 Tolerance L/h : + 20.0

Test nozzle holde

: 1 688 901 019 assembly

Opening pressure

: 208.5 bar Tolerance bar : + 1.5 Test lines : 1 680 750 074

Outside diameter : 6.0

x inside diameter : 3.0

x length mm : 1000

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values ____

BEGINNING OF DELIVERY

Test pressure bar : 26.0 Tolerance bar : + 1.0

Prestroke mm : 3.65 : + 0.05 Tolerance mm

Check

: **←** 0.10 tolerance mm

Rack travel in mm : 10.50 : **←** 1.50 Tolerance mm

Firing order : 1-5-3-6-2-

Phasing : 0-60-120-180-240

: -300 : +- 0.30 Tolerance

Check

tolerance °NW : + - 0.50

Start of delivery mark

Barrel no. : 1

BASIC SETTING

Rated speed rpm : 900

Rack travel in mm: 12.05 Tolerance mm: +- 0.05

Del. quantity +	
cm3/1000 strokes : 340.0	Rated speed rpm : 500
<u> </u>	guide sleeve
cm3/1000 strokes : +- 1.0 +	travel mm : 3.33
+	Tolerance mm : +- 0.25
Check tolerance +	
cm3/1000s. : + 4.0 +	Rated speed rpm : 1150
	guide sleeve
Spreed +	travel mm : 11.50
cm3/1000 strokes : 5.0 +	Tolerance mm : +- 0.50
J.	
Check tolerance	
cm3/1000s. : 9.0 +	GUIDE SLEEVE POSITION
750	Data di ama adi ama
Rated speed rpm : 350	Rated speed rpm : 1010
<u>†</u>	Rack travel in mm : 11.00
Rack travel in mm: 4.90	Tolerance mm : +- 1.30
1	Toterance mm : +- 1.50
Del. quantity +	FILL LOAD DELTHEDY AT EALL LOAD STOP
cm3/1000 strokes : 20.0 + cm3/1000 strokes : + 3.0 +	FULL LOAD DELIVERY AT FULL LOAD STOP
	Rated speed rpm : 900
Check tolerance + 6.0 +	
	Aneroid pressure hPa : –
Spreed + cm3/1000 strokes : 8.0 +	
	Del. quantity cm3/1000 strokes : 340.0
Check tolerance + cm3/1000s. : 12.0 +	cm3/1000 strokes : - 340.0
CIII37 (UUU3. : 12.U	Check tolerance
Ţ	cm3/1000s. : +- 4.0
(B) SETTING OF INJECTION PUMP	Spreed
WITH GOVERNOR	cm3/1000 strokes : 5.0
MILL GOVEKNOK	Check tolerance
<u></u>	cm3/1000s. : 9.0
GUIDE SLEEVE TRAVEL	
GOZDE GEEGGE TIMEE	
Rated speed rpm : 350	
guide sleeve +	CONTROL LEVER
travel mm : 1.53 +	
Tolerance mm : + 0.25	control lever
	position degree : 123.0
Rated speed rpm : 960	tolerance degree : +- 4.0
guide sleeve	-
travel mm : 8.69 +	RATED SPEED
Tolerance mm : + 0.25	
+	rack travel mm : 11.00
Rated speed rpm : 733	Rated speed rpm : 945
guide sleeve +	Tolerance 1/min : +- 5
travel mm : 5.92 +	
Tolerance mm : + 0.25 +	rack travel mm : 4.00
+	Rated speed rpm : 1015
Rated speed rpm : 369 +	Tolerance 1/min : +- 15
guide sleeve +	
travel mm : 1.82 +	rack travel mm : 0.50
Tolerance mm : +- 0.25 +	Tolerance mm : + 0.50
+	Rated speed rpm : 1150
Rated speed rpm : 419 +	
guide sleeve +	
travel mm : 2.54	
Tolerance $m_{\rm m}$: +- 0.25 +	LOW IDLE

A09

control lever position degree : 87.0 tolerance degree : + 4.0 Testing: Rated speed rpm : 350 rack travel mm : 4.90 Tolerance mm : + 0.10 Rated speed rpm : 250 CRT mm min. :> 7.50Rated speed rpm : 400 TORQUE CONTROL Rated speed rpm : 900 rack travel mm : 12.05 Tolerance mm : + 0.05 START CUT-OUT Rated speed rpm : > 100 Rated speed rpm : < 270 Check speed 1/min : > 80 Check speed 1/min : < 290 **BREAKAWAY** Rack travel in mm : 11.00 Rated speed rpm : 945 Tolerance 1/min : +- 5

cm3/1000 strokes : 8.0
Check tolerance
cm3/1000s. : 12.0

End of test specification sheet

LOW IDLE

Rated speed rpm : 350 Del. quantity

cm3/1000 strokes : 20.0 cm3/1000 strokes : + 3.0

Check tolerance cm3/1000s. : +- 6.0

Spreed

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

Edition Test oil : 10.05.96 : ISO 4113

Combination No. : 0 402 746 952

Injection pump

Pump designation : PES6P120A320RS7294 EP type number : 0 412 726 895

Governor

Governer design. : RQV275...1000PA1001

: -2

Governer no.

: 0 421 813 989

Cust. part No. : CCEP-5136 66-214

Customer-spec. information

Customer : RENAULT V.I.

Motor

: MIDR 063540 N/3

Power KW

: 283.0

TEST BENCH REQUIREMENTS

Inlet line : 3.2

Test oil inlet

temp. °C

40

Tolerance °C

2.0

Overflow valve : 2 417 413 071

Inlet press. bar :

Tolerance bar : \leftarrow 0.1

Test nozzle holde

assembly

: 1 688 901 105

Opening pressure

bar

208.5

Tolerance bar : + 1.5

Test lines : 1 680 750 089

x inside diameter:

8.0

Outside diameter :

3.0

x length mm : 600

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values _____

BEGINNING OF DELIVERY

Test pressure bar : Tolerance bar : + 1.0

Prestroke mm : 4.55 Tolerance mm : + 0.05

Check

tolerance mm : + 0.10

Rack travel in mm : 19.50

Tolerance mm : \leftarrow 0.50

Firing order : 1-5-3-6-2-

: 4

Phasing : 0-60-120-180-240

: -300

: **←** 0.30 Tolerance

Check

tolerance "NW : + 0.50

Start of delivery mark

Barrel no. : 1

CRT ZERO POSITION

Rack travel in mm: 13.35

Tolerance mm : \leftarrow 0.05

BASIC SETTING

Rated speed rpm : 600

A11

		+
Rack travel in mm Tolerance mm	: -7.25 : + 0.30	+++++++++++++++++++++++++++++++++++++++
Del. quantity cm3/1000 strokes	: 74.0	+
cm3/1000 strokes	: +- 1.0	‡
Check tolerance cm3/1000s.	: + 4.0	+
Spreed		Ŧ
cm3/1000 strokes	: 4.0	Ŧ
Check tolerance cm3/1000s.	: 7.0	Ŧ
Rated speed rpm	: 600	Ŧ
Del. quantity cm3/1000 strokes	: 290.0	Ŧ
cm3/1000 strokes	: +- 2.0	Ŧ
Check tolerance cm3/1000s.	: +- 5.0	Ī
Spreed cm3/1000 strokes	: 10.0	Ī
Check tolerance cm3/1000s.	: 15.0	I I
Rated speed rpm :	: 300	Ŧ
Del. quantity cm3/1000 strokes : cm3/1000 strokes : Check tolerance cm3/1000s.	-8.20 + 0.10 31.0 + 2.5 + 5.0	T + + + + + + + + + + + + + + + + + + +
	6.0	Ŧ
Check tolerance cm3/1000s.	10.0	‡
(B) SETTING OF INJE	ECTION PUMP	++++
GUIDE SLEEVE TRAVEL	-	Ŧ
Rated speed rpm :	300	Ī

guide sleeve travel mm Tolerance mm	: 1.66 : +- 0.10
Rated speed rpm guide sleeve	: 1086
travel mm Tolerance mm	: 8.46 : + 0.10
Rated speed rpm guide sleeve	: 773
travel mm Tolerance mm	: 6.09 : +- 0.20
Rated speed rpm guide sleeve	: 343
travel mm Tolerance mm	: 2.33 : + 0.20
Rated speed rpm guide sleeve	: 393
travel mm Tolerance mm	: 2.99 : + 0.20
Rated speed rpm guide sleeve	: 490
travel mm Tolerance mm	: 3.81 : + 0.20
Rated speed rpm guide sleeve	: 1370
travel mm Tolerance mm	: 11.50 : + 0.50
- CCCT Q; ICC IISII	
GUIDE SLEEVE POSIT	LION
Rated speed rpm	: 1200
Rack travel in mm	

Tolerance mm : 12.20

FULL LOAD DELIVERY AT FULL LOAD STOP

Rated speed rpm 600 Aneroid pressure 1000 hPa Del. quantity cm3/1000 strokes : cm3/1000 strokes : 290.0 cm3/1000 strokes : + 2.0 Check tolerance cm3/1000s. : +- 5.0 Spreed cm3/1000 strokes : 10.0 Check tolerance cm3/1000s. 15.0

CONTROL LEVER	
control lever position degree tolerance degree	: 301.0 : ← 4.0
RATED SPEED	
rack travel mm Rated speed rpm Tolerance 1/min	: -1.00 : 1070 : + 5
rack travel mm Rated speed rpm Tolerance 1/min	: -9.30 : 1205 : + 15
rack travel mm Tolerance mm Rated speed rpm	: -12.85 : +- 0.55 : 1350
LOW IDLE	
control lever position degree tolerance degree	: 247.0 : + 4.0
Testing:	
Rated speed rpm rack travel mm Tolerance mm	: 300 : -8.20 : + 0.10
Rated speed rpm	: 200
CRT mm max.	: < -6.80
Rated speed rpm	: 365
TOPQUE CONTROL	·-···
Rated speed rpm	: 600
Rated speed rpm Tolerance mm	: 1000 : +- 0.10
Rated speed rpm rack travel mm Tolerance mm	: 600 : -4.50 : +- 0.10
Tolerance mm Rated speed rpm rack travel mm	: + 0.10 : 600 : -4.50

Rated speed rpm Pressure hPa	: 500 : 1000
MEASUREMENT	
Pressure hPa Rated speed rpm rack travel mm Tolerance mm	: - : 500 : -3.80 : + 0.20
Rated speed rpm	: 500
Pressure hPa rack travel mm Tolerance mm	: 240 : -2.60 : +- 0.20
Pressure hPa rack travel mm Tolerance mm	: 480 : −0.75 : ← 0.05
START CUT-OUT	
Rated speed rpm Rated speed rpm	: > 100 : < 195
Check speed 1/min Check speed 1/min	: > 80 : < 215
	
EUE) KELTUEDA L'UN	PACTEDISTICS
Aneroid pressure hPa Rated speed rpm Del. quantity cm3/1000 strokes cm3/1000 strokes Check tolerance cm3/1000s.	: 270.0
Aneroid pressure hPa Rated speed rpm Del. quantity cm3/1000 strokes cm3/1000 strokes Check tolerance	: 1000 : 1000 : 270.0 : +- 4.0

SETTING

Rated speed rpm : 500 hel. quantity cm3/1000 strokes : 167.0 cm3/1000 strokes : +- 1.0 Check tolerance cm3/1000s. : +- 4.0 BREAKAWAY Rack travel in mm : -1.00 Rated speed rpm : 1070 Tolerance 1/min : +- 5 STARTING FUEL DELIVERY Del. quantity cm3/1000 strokes : 160.0 cm3/1000 strokes : + 10.0 Check tolerance : **←** 14.0 cm3/1000s. LOW IDLE Rated speed rpm : 300 Del. quantity cm3/1000 strokes : 31.0 cm3/1000 strokes : + 2.5 Check tolerance cm3/1000s. : +- 5.0 Spreed cm3/1000 strokes : 6.0 Check tolerance : 10.0 cm3/1000S.End of test specification sheet

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

Edition : 22.03.95 Test oil : ISO 4113

Combination No. : 0 402 746 993

Injection pump

Pump designation : PES6P120A720LS7341 EP type number : 0 412 726 913

Governor

Governer design. : RQV350...1150PA1159

Governer no. : 0 421 814 099

Cust. part No. : 0250742302

Customer-spec. information Customer : MTU : 6-R-183 Motor Power KW : 440.0

TEST BENCH REQUIREMENTS

Inlet line : 4.1

Test oil inlet

temp. °C : +- 2.0 Tolerance °C

Overflow valve : 1 417 413 025

Inlet press. bar : 1.5
Tolerance bar : + 0.1

Overflow quantity

min. l/h : 90
Tolerance l/h : +-- 10.0

Test nozzle holde

assembly : 1 688 901 105

Opening pressure

: 208.5 bar Tolerance bar : + 1.5 Test lines : 1 680 750 075

Outside diameter : 8.0

x inside diameter : x length mm : 1000

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values _____

BEGINNING OF DELIVERY

Test pressure bar : 26.0 Tolerance bar : + 1.0

Prestroke mm : 4.05
Tolerance mm : + 0.05 Check

tolerance mm : +- 0.10

Rack travel in mm : 20.50 Tolerance mm : +- 0.50

Firing order : 6-2-4-1-5-

: 0-60-120-180-240 Phasing

: -300

: **←** 0.30 Tolerance

Check

tolerance *NW : +- 0.50

Start of delivery mark

Tolerance : **←** 0.10

Check

tolerance *NW : **←** 0.75

: 6 Barrel no.

BASIC SETTING

Rated speed rpm : 600

Rack travel in mm: 10.20

Tolerance mm : +- 0.05

		† Tolerance mm : +- 0.25
Del. quantity		+
cm3/1000 strokes	: 273.0	+ Rated speed rpm : 600
		+ guide sleeve
cm3/1000 strokes	: +- 1.0	† travel mm : 3.83
		† Tolerance mm : +- 0.25
Check tolerance		+
cm3/1000s.	: +- 4.0	+ Rated speed rpm : 1308
		+ guide sleeve
Spreed		† travel mm : 10.00
cm3/1000 strokes	: 9.0	Tolerance mm : +- 0.25
		}
Check tolerance		+ Rated speed rpm : 1410
cm3/1000s.	: 12.0	+ guide sleeve
		+ travel mm : 11.50
Rated speed rpm	: 350	+ Tolerance mm : +- 0.50
wasan abaan i pin		1
Rack travel in mm	: 4.10	GUIDE SLEEVE POSITION
Tolerance mm	: + 0.10	
Del. quantity		Rated speed rpm : 1260
cm3/1000 strokes	: 17.0	- 1200 open open open open open open open open
cm3/1000 strokes		Rack travel in mm: 13.00
Check tolerance		Tolerance mm : + 1.30
cm3/1000s.		
Spreed		
cm3/1000 strokes	: 12.0	FULL LOAD DELIVERY AT FULL LOAD STOP
Check tolerance		TOCK COMP DELETION IN TOCK COMP STOT
cm3/1000s.	: 16.0	Rated speed rpm : 600
CIIS7 10000.	. 1515	- Aneroid pressure
		→ hPa • 800
(R) SETTING OF IN	JECTION PLIMP	+ hPa : 800
(B) SETTING OF IN	JECTION PUMP	+ Del. quantity
(B) SETTING OF IN WITH GOVERNOR	JECTION PUMP	Del. quantity + cm3/1000 strokes : 273.0
	JECTION PUMP	Del. quantity + cm3/1000 strokes : 273.0 + cm3/1000 strokes : + 1.0
WITH GOVERNOR		Del. quantity cm3/1000 strokes : 273.0 cm3/1000 strokes : + 1.0 Check tolerance
		<pre>Del. quantity cm3/1000 strokes : 273.0 cm3/1000 strokes : + 1.0 Check tolerance cm3/1000s. : + 4.0</pre>
WITH GOVERNOR GUIDE SLEEVE TRAV	EL	Del. quantity cm3/1000 strokes : 273.0 cm3/1000 strokes : + 1.0 Check tolerance cm3/1000s. : + 4.0 Spreed
WITH GOVERNOR GUIDE SLEEVE TRAV Rated speed rpm	EL	Del. quantity cm3/1000 strokes : 273.0 cm3/1000 strokes : + 1.0 Check tolerance cm3/1000s. : + 4.0 Spreed cm3/1000 strokes : 9.0
GUIDE SLEEVE TRAV Rated speed rpm guide sleeve	EL: 350	Del. quantity cm3/1000 strokes : 273.0 cm3/1000 strokes : + 1.0 Check tolerance cm3/1000s. : + 4.0 Spreed cm3/1000 strokes : 9.0 Check tolerance
WITH GOVERNOR GUIDE SLEEVE TRAV Rated speed rpm guide sleeve travel mm	EL: 350:: 1.53	Del. quantity cm3/1000 strokes : 273.0 cm3/1000 strokes : + 1.0 Check tolerance cm3/1000s. : + 4.0 Spreed cm3/1000 strokes : 9.0
GUIDE SLEEVE TRAV Rated speed rpm guide sleeve	EL: 350	Del. quantity cm3/1000 strokes : 273.0 cm3/1000 strokes : + 1.0 Check tolerance cm3/1000s. : + 4.0 Spreed cm3/1000 strokes : 9.0 Check tolerance
WITH GOVERNOR GUIDE SLEEVE TRAV Rated speed rpm guide sleeve travel mm Tolerance mm	: 350 : 1.53 : + 0.15	Del. quantity cm3/1000 strokes : 273.0 cm3/1000 strokes : + 1.0 Check tolerance cm3/1000s. : + 4.0 Spreed cm3/1000 strokes : 9.0 Check tolerance
WITH GOVERNOR GUIDE SLEEVE TRAV Rated speed rpm guide sleeve travel mm Tolerance mm Rated speed rpm	: 350 : 1.53 : + 0.15	Del. quantity cm3/1000 strokes : 273.0 cm3/1000 strokes : + 1.0 Check tolerance cm3/1000s. : + 4.0 Spreed cm3/1000 strokes : 9.0 Check tolerance cm3/1000s. : 12.0
WITH GOVERNOR GUIDE SLEEVE TRAV Rated speed rpm guide sleeve travel mm Tolerance mm Rated speed rpm guide sleeve	EL : 350 : 1.53 : + 0.15 : 1206	Del. quantity cm3/1000 strokes : 273.0 cm3/1000 strokes : + 1.0 Check tolerance cm3/1000s. : + 4.0 Spreed cm3/1000 strokes : 9.0 Check tolerance
WITH GOVERNOR GUIDE SLEEVE TRAV Rated speed rpm guide sleeve travel mm Tolerance mm Rated speed rpm guide sleeve travel mm	EL : 350 : 1.53 : + 0.15 : 1206 : 8.35	Del. quantity cm3/1000 strokes : 273.0 cm3/1000 strokes : + 1.0 Check tolerance cm3/1000s. : + 4.0 Spreed cm3/1000 strokes : 9.0 Check tolerance cm3/1000s. : 12.0 CONTROL LEVER
WITH GOVERNOR GUIDE SLEEVE TRAV Rated speed rpm guide sleeve travel mm Tolerance mm Rated speed rpm guide sleeve	EL : 350 : 1.53 : + 0.15 : 1206	Del. quantity cm3/1000 strokes : 273.0 cm3/1000 strokes : + 1.0 Check tolerance cm3/1000s. : + 4.0 Spreed cm3/1000 strokes : 9.0 Check tolerance cm3/1000s. : 12.0 CONTROL LEVER control lever
WITH GOVERNOR GUIDE SLEEVE TRAV Rated speed rpm guide sleeve travel mm Tolerance mm Rated speed rpm guide sleeve travel mm Tolerance mm	EL : 350 : 1.53 : + 0.15 : 1206 : 8.35 : + 0.20	Del. quantity cm3/1000 strokes : 273.0 cm3/1000 strokes : + 1.0 Check tolerance cm3/1000s. : + 4.0 Spreed cm3/1000 strokes : 9.0 Check tolerance cm3/1000s. : 12.0 CONTROL LEVER control lever position degree : 120.0
WITH GOVERNOR GUIDE SLEEVE TRAV Rated speed rpm guide sleeve travel mm Tolerance mm Rated speed rpm guide sleeve travel mm Tolerance mm Rated speed rpm Rated speed rpm Rated speed rpm	EL : 350 : 1.53 : + 0.15 : 1206 : 8.35	Del. quantity cm3/1000 strokes : 273.0 cm3/1000 strokes : + 1.0 Check tolerance cm3/1000s. : + 4.0 Spreed cm3/1000 strokes : 9.0 Check tolerance cm3/1000s. : 12.0 CONTROL LEVER control lever
WITH GOVERNOR GUIDE SLEEVE TRAV Rated speed rpm guide sleeve travel mm Tolerance mm Rated speed rpm guide sleeve travel mm Tolerance mm Rated speed rpm guide sleeve	EL : 350 : 1.53 : + 0.15 : 1206 : 8.35 : + 0.20 : 950	Del. quantity cm3/1000 strokes : 273.0 cm3/1000 strokes : + 1.0 Check tolerance cm3/1000s. : + 4.0 Spreed cm3/1000 strokes : 9.0 Check tolerance cm3/1000s. : 12.0 CONTROL LEVER control lever position degree : 120.0 tolerance degree : + 4.0
WITH GOVERNOR GUIDE SLEEVE TRAV Rated speed rpm guide sleeve travel mm Tolerance mm Rated speed rpm guide sleeve travel mm Tolerance mm Rated speed rpm guide sleeve travel mm	EL : 350 : 1.53 : + 0.15 : 1206 : 8.35 : + 0.20 : 950 : 5.78	Del. quantity cm3/1000 strokes : 273.0 cm3/1000 strokes : + 1.0 Check tolerance cm3/1000s. : + 4.0 Spreed cm3/1000 strokes : 9.0 Check tolerance cm3/1000s. : 12.0 CONTROL LEVER control lever position degree : 120.0
WITH GOVERNOR GUIDE SLEEVE TRAV Rated speed rpm guide sleeve travel mm Tolerance mm Rated speed rpm guide sleeve travel mm Tolerance mm Rated speed rpm guide sleeve	EL : 350 : 1.53 : + 0.15 : 1206 : 8.35 : + 0.20 : 950	Del. quantity cm3/1000 strokes : 273.0 cm3/1000 strokes : + 1.0 Check tolerance cm3/1000S. : + 4.0 Spreed cm3/1000 strokes : 9.0 Check tolerance cm3/1000S. : 12.0 CONTROL LEVER control lever position degree : 120.0 tolerance degree : + 4.0 RATED SPEED
WITH GOVERNOR GUIDE SLEEVE TRAV Rated speed rpm guide sleeve travel mm Tolerance mm Rated speed rpm guide sleeve travel mm Tolerance mm Rated speed rpm guide sleeve travel mm Tolerance mm Tolerance mm	EL : 350 : 1.53 : + 0.15 : 1206 : 8.35 : + 0.20 : 950 : 5.78 : + 0.25	Del. quantity cm3/1000 strokes : 273.0 cm3/1000 strokes : + 1.0 Check tolerance cm3/1000s. : + 4.0 Spreed cm3/1000 strokes : 9.0 Check tolerance cm3/1000s. : 12.0 CONTROL LEVER control lever position degree : 120.0 tolerance degree : + 4.0 RATED SPEED rack travel mm : 13.50
GUIDE SLEEVE TRAV Rated speed rpm guide sleeve travel mm Tolerance mm Rated speed rpm guide sleeve travel mm Tolerance mm Rated speed rpm guide sleeve travel mm Tolerance mm Rated speed rpm guide sleeve travel mm Tolerance mm	EL : 350 : 1.53 : + 0.15 : 1206 : 8.35 : + 0.20 : 950 : 5.78	Del. quantity cm3/1000 strokes : 273.0 cm3/1000 strokes : + 1.0 Check tolerance cm3/1000s. : + 4.0 Spreed cm3/1000 strokes : 9.0 Check tolerance cm3/1000s. : 12.0 CONTROL LEVER control lever position degree : 120.0 tolerance degree : + 4.0 RATED SPEED rack travel mm : 13.50 Rated speed rpm : 1195
WITH GOVERNOR GUIDE SLEEVE TRAV Rated speed rpm guide sleeve travel mm Tolerance mm Rated speed rpm guide sleeve travel mm Tolerance mm Rated speed rpm guide sleeve travel mm Tolerance mm Rated speed rpm guide sleeve travel mm Tolerance mm	EL : 350 : 1.53 : + 0.15 : 1206 : 8.35 : + 0.20 : 950 : 5.78 : + 0.25 : 416	Del. quantity cm3/1000 strokes : 273.0 cm3/1000 strokes : + 1.0 Check tolerance cm3/1000s. : + 4.0 Spreed cm3/1000 strokes : 9.0 Check tolerance cm3/1000s. : 12.0 CONTROL LEVER control lever position degree : 120.0 tolerance degree : + 4.0 RATED SPEED rack travel mm : 13.50
GUIDE SLEEVE TRAV Rated speed rpm guide sleeve travel mm Tolerance mm Rated speed rpm guide sleeve travel mm Tolerance mm Rated speed rpm guide sleeve travel mm Tolerance mm Rated speed rpm guide sleeve travel mm Tolerance mm	EL : 350 : 1.53 : + 0.15 : 1206 : 8.35 : + 0.20 : 950 : 5.78 : + 0.25 : 416 : 2.77	Del. quantity cm3/1000 strokes : 273.0 cm3/1000 strokes : + 1.0 Check tolerance cm3/1000s. : + 4.0 Spreed cm3/1000 strokes : 9.0 Check tolerance cm3/1000s. : 12.0 CONTROL LEVER control lever position degree : 120.0 tolerance degree : + 4.0 RATED SPEED rack travel mm : 13.50 Rated speed rpm : 1195 Tolerance 1/min : + 5
WITH GOVERNOR GUIDE SLEEVE TRAV Rated speed rpm guide sleeve travel mm Tolerance mm Rated speed rpm guide sleeve travel mm Tolerance mm Rated speed rpm guide sleeve travel mm Tolerance mm Rated speed rpm guide sleeve travel mm Tolerance mm	EL : 350 : 1.53 : + 0.15 : 1206 : 8.35 : + 0.20 : 950 : 5.78 : + 0.25 : 416	Del. quantity cm3/1000 strokes : 273.0 cm3/1000 strokes : + 1.0 Check tolerance cm3/1000s. : + 4.0 Spreed cm3/1000 strokes : 9.0 Check tolerance cm3/1000s. : 12.0 CONTROL LEVER control lever position degree : 120.0 tolerance degree : + 4.0 RATED SPEED rack travel mm : 13.50 Rated speed rpm : 1195 Tolerance 1/min : + 5 rack travel mm : 4.00
GUIDE SLEEVE TRAV Rated speed rpm guide sleeve travel mm Tolerance mm Rated speed rpm guide sleeve travel mm Tolerance mm Rated speed rpm guide sleeve travel mm Tolerance mm Rated speed rpm guide sleeve travel mm Tolerance mm Rated speed rpm guide sleeve travel mm Tolerance mm	EL : 350 : 1.53 : + 0.15 : 1206 : 8.35 : + 0.20 : 950 : 950 : 5.78 : + 0.25 : 416 : 2.77 : + 0.25	Del. quantity cm3/1000 strokes : 273.0 cm3/1000 strokes : + 1.0 Check tolerance cm3/1000s. : + 4.0 Spreed cm3/1000 strokes : 9.0 Check tolerance cm3/1000s. : 12.0 CONTROL LEVER control lever position degree : 120.0 tolerance degree : + 4.0 RATED SPEED rack travel mm : 13.50 Rated speed rpm : 1195 Tolerance 1/min : + 5 rack travel mm : 4.00 Rated speed rpm : 1300
GUIDE SLEEVE TRAV Rated speed rpm guide sleeve travel mm Tolerance mm Rated speed rpm guide sleeve travel mm Tolerance mm Rated speed rpm guide sleeve travel mm Tolerance mm Rated speed rpm guide sleeve travel mm Tolerance mm Rated speed rpm guide sleeve travel mm Tolerance mm Rated speed rpm guide sleeve travel mm Tolerance mm	EL : 350 : 1.53 : + 0.15 : 1206 : 8.35 : + 0.20 : 950 : 5.78 : + 0.25 : 416 : 2.77	Del. quantity cm3/1000 strokes : 273.0 cm3/1000 strokes : + 1.0 Check tolerance cm3/1000s. : + 4.0 Spreed cm3/1000 strokes : 9.0 Check tolerance cm3/1000s. : 12.0 CONTROL LEVER control lever position degree : 120.0 tolerance degree : + 4.0 RATED SPEED rack travel mm : 13.50 Rated speed rpm : 1195 Tolerance 1/min : + 5 rack travel mm : 4.00
GUIDE SLEEVE TRAV Rated speed rpm guide sleeve travel mm Tolerance mm Rated speed rpm guide sleeve travel mm Tolerance mm Rated speed rpm guide sleeve travel mm Tolerance mm Rated speed rpm guide sleeve travel mm Tolerance mm Rated speed rpm guide sleeve travel mm Tolerance mm	EL : 350 : 1.53 : + 0.15 : 1206 : 8.35 : + 0.20 : 950 : 950 : 5.78 : + 0.25 : 416 : 2.77 : + 0.25	Del. quantity cm3/1000 strokes : 273.0 cm3/1000 strokes : + 1.0 Check tolerance cm3/1000s. : + 4.0 Spreed cm3/1000 strokes : 9.0 Check tolerance cm3/1000s. : 12.0 CONTROL LEVER control lever position degree : 120.0 tolerance degree : + 4.0 RATED SPEED rack travel mm : 13.50 Rated speed rpm : 1195 Tolerance 1/min : + 5 rack travel mm : 4.00 Rated speed rpm : 1300

Tolerance mm Rated speed rpm	: ← 0.75 : 1400	Pressure hPa : 1300 rack travel mm : 11.70 Tolerance mm : + 0.05
LOW IDLE		Pressure hPa : 1700 rack travel mm : 13.80 Tolerance mm : + 0.10
control lever position degree tolerance degree	: 65.0 : + 4.0	START CUT-OUT
Testing:		+ Rated speed rpm : > 220 + Rated speed rpm : < 270
Rated speed rpm rack travel mm Tolerance mm	: 4.10 : + 0.10	Check speed 1/min : > 200 Check speed 1/min : < 290
CRT mm min.	: > 5.60	FUEL DELIVERY CHARACTERISTICS
Rated speed rpm		Aneroid pressure hPa : 2000
TORQUE CONTROL		Rated speed rpm : 1150 Del. quantity cm3/1000 strokes : 344.0
Rated speed rpm rack travel mm Tolerance mm		+ cm3/1000 strokes : +- 3.0 + Check tolerance + cm3/1000s. : +- 4.5
Rated speed rpm rack travel mm Tolerance mm	: 14.50 : + 0.10	Aneroid pressure hPa : - Rated speed rpm : 500 Del. quantity
Rated speed rpm rack travel mm Tolerance mm		+ cm3/1000 strokes : 127.0 + cm3/1000 strokes : + 1.0 + Check tolerance + cm3/1000s. : + 4.0
ANEROID/ALTITUDE COMPENSATOR TEST		BREAKAWAY
MEASUREMENT		+ Rack travel in mm : 13.50 + Rated speed rpm : 1195 + Tolerance 1/min : +- 5
Pressure hPa Rated speed rpm rack travel mm Tolerance mm	: - : 600 : 6.20 : ← 0.20	STARTING FUEL DELIVERY
Pressure hPa rack travel mm Tolerance mm	: 200 : 7.10 : ← 0.05	Rated speed rpm : 100 Del. quantity cm3/1000 strokes : 420.0 cm3/1000 strokes : + 20.0
Pressure hPa rack travel mm Tolerance mm	: 400 : 9.10 : ← 0.10	Check tolerance : +- 24.0

LOW IDLE

Rated speed rpm : 350

Del. quantity

cm3/1000 strokes : 17.0

cm3/1000 strokes : + 3.0

Check tolerance

cm3/1000s. : + 6.0

Spreed

cm3/1000 strokes : 12.0

Check tolerance

cm3/1000s. : 16.0

Note remarks

Refer to Service Info for test and adjustment instructions.
See microcard(s) W400/...

Edition : 25.09.95 Test oil : ISO 4113

Combination No. : 0 402 846 066

Injection pump

Pump designation : PE6P110A320RS8036 EP type number : 0 412 816 012

Governor

Governer design. : RQV300...1200PA1043

: -1

Governer no. : 0 421 814 150

Cust. part No. : 11030925

: -P02 v.02.95

Customer—spec. information
Customer : VME
Motor : TD73KFE

Power KW : 173.0

TEST BENCH REQUIREMENTS

Inlet line : 3.1

Test oil inlet

temp. °C : 40
Tolerance °C : +- 2.0

Overflow valve : 2 417 413 078

Inlet press. bar : 2.5 Tolerance bar : + 0.1

Test nozzle holde

assembly : 1 688 901 101

Opening pressure

bar : 208.5 Tolerance bar : +- 1.5

Test Lines : 1 680 750 008

Outside diameter : 6.0

x inside diameter : 2.0 x length mm : 600

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values _____

BEGINNING OF DELIVERY

Test pressure bar : 26.0 Tolerance bar : + 1.0

Prestroke mm : 3.85
Tolerance mm : + 0.05

Check

tolerance mm : + 0.10

Rack travel in mm : 10.50 Tolerance mm : + 0.50

Firing order : 1-5-3-6-2-

: 4

Phasing : 0-60-120-180-240

: -300

Tolerance : \leftarrow 0.30

Check

tolerance *NW : + 0.50

Start of delivery mark

Barrel no. : 1

BASIC SETTING

Rated speed rpm : 700

Rack travel in mm: 11.10

Tolerance mm : +- 0.05

Del. quantity

cm3/1000 strokes : 182.0

cm3/1000 strokes : \leftarrow 1.0

A19

		1	Tolerance mm	: +- 0.25
Check tolerance		- +		
cm3/1000s.	: - 3.0	‡	Rated speed rpm guide sleeve	: 1550
Spreed		- 1	travel mm	: 11.50
cm3/1000 strokes	: 7.0	<u>†</u>	Tolerance mm	: + 0.50
Check tolerance	 	- I		
cm3/1000s.	: 11.0	<u> </u>	GUIDE SLEEVE POSI	TION
Rated speed rpm	: 300	Ì	Rated speed rpm	: 1285
		1	Rack travel in mm	: 16.50
Rack travel in mm	: 4.50	+	Tolerance mm	: +- 2.00
Tolerance mm		+		
Del. quantity		+		·
cm3/1000 strokes	: 24.0	+	FULL LOAD DELIVER	Y AT FULL LO
cm3/1000 strokes	: ← 2.0	+		
Check tolerance		+	Rated speed rpm	: 700
cm3/1000s.	: ← 5.0	+	Aneroid pressure	
Spreed		+	hPa .	: 1500
cm3/1000 strokes	: 5.0	+	Del. quantity	
Check tolerance		1	cm3/1000 strokes	: 182.0
cm3/1000s.	: 8.0	1	cm3/1000 strokes	
J. 100051		1	Check tolerance	•
		1	cm3/1000s.	: +- 3.0
(B) SETTING OF IN	JECTION PUMP	1	Spreed	
WITH GOVERNOR	0 20 1 20 1 0 1 1	1	cm3/1000 strokes	: 7.0
MIIII GOVERNOR		1	Check tolerance	
		. 1	cm3/1000s.	: 11.0
GUIDE SLEEVE TRAV	EL	+	<i></i>	
Rated speed rpm	: 300	Ī		
guide sleeve		1	CONTROL LEVER	
travel mm	: 1.19	1		
Tolerance mm	: +- 0.25	1	control lever	
10101 di 100 mm	7	1	position degree	: 49.0
Rated speed rpm	: 1256	1	tolerance degree	
guide sleeve		1	or to: ao ang. to	,,,,
travel mm	: 8.23	1	control lever	
Tolerance mm	: +- 0.25	1	position degree	: 115.0
TOTAL MICE MA			tolerance degree	
Rated speed rpm	: 857	1	TO EST WIND GOOD! OF	7.0
guide sleeve	. 031	1	RATED SPEED	
travel mm	: 5.21	1		
Tolerance mm	: +- 0.25	1	rack travel mm	: 10.10
rocer di jee min			Rated speed rpm	: 1245
Rated speed rpm	: 385		Tolerance 1/min	: +- 5
guide sleeve	. 303	1	TOTAL GITTE THE TITLE	•
travel mm	: 1.98	1	rack travel mm	: 4.00
Tolerance mm	: + 0.25		Rated speed rpm	: 1345
TOLET GIVE THE	0.23		Tolerance 1/min	: +- 15
Dated annual	: 435	Ι	Ocerance 1710111	• • • • • • • • • • • • • • • • • • • •
Rated speed rpm	روب	Ţ	rack travel mm	: 0.50
guide sleeve	. 2/5			: +- 0.50
travel mm	: 2.45		Tolerance mm	
Tolerance mm	: ← 0.25	T	Rated speed rpm	: 1450
Oakad amaad	. 520	Ť		
Rated speed rpm	: 520	Ť		
guide sleeve	. 70/	†	I OU TN E	
travel mm	: 3.04	Ŧ	LOW IDLE	

LOAD STOP

control lever

position degree : 80.0 tolerance degree : +- 4.0

control lever

position degree : 14.0 tolerance degree : +- 4.0

Testing:

Rated speed rpm : 300 rack travel mm : 4.50 Tolerance mm : + 0.10

Rated speed rpm : 200

CRT mm min. : > 6.60

Rated speed rpm : 340

TORQUE CONTROL

Rated speed rpm : 700 rack travel mm : 11.10 Tolerance mm : + 0.05

ANEROID/ALTITUDE COMPENSATOR TEST

SETTING

Rated speed rpm : 500
Pressure hPa : 1500
rack travel mm : 11.10
Tolerance mm : + 0.05

MEASUREMENT

Pressure hPa : Rated speed rpm : 500
rack travel mm : 7.80
Tolerance mm : + 0.10

Rated speed rpm : 500

Pressure hPa : 740
rack travel mm : 2.90
Tolerance mm : +- 0.20

Pressure hPa : 240 rack travel mm : 0.25 Tolerance mm : + 0.05

FUEL DELIVERY CHARACTERISTICS

Aneroid pressure

hPa : -Rated speed rpm : 700

Del. quantity

cm3/1000 strokes : 114.0 cm3/1000 strokes : +- 1.0

Check tolerance cm3/1000s. : +- 4.0

BREAKAWAY

Rack travel in mm: 10.10
Rated speed rpm: 1245
Tolerance 1/min: +- 5

LOW IDLE

Rated speed rpm : 300

Del. quantity

cm3/1000 strokes : 24.0

cm3/1000 strokes : +- 2.0

Check tolerance

cm3/1000s. : +- 5.0

Spreed

cm3/1000 strokes : 5.0

Check tolerance

cm3/1000s. : 8.0

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

Edition

: 16.10.96 Test oil : ISO 4113

Combination No. : 0 402 746 641

Injection pump

Pump designation : PES6P120A320LS7337 EP type number : 0 412 726 910

Governor

Governer design. : RQV350...1100PA1200K

Governer no. : 0 421 815 453

Cust. part No. : 1823959091

Customer-spec. information Customer : NAVISTAR Motor : DTA-531

Power KW : 205.0

TEST BENCH REQUIREMENTS

Inlet line : 4.2

Test oil inlet

temp. °C : **←** 2.0 Tolerance °C

Overflow valve : 2 417 413 076

Inlet press. bar : Inlet press. bar : 2.8 Tolerance bar : + 0.1

Test nozzle holde

: 1 688 901 101 assembly

Opening pressure

: 208.5 bar Tolerance bar

Test lines : 1 680 750 008

Outside diameter : 6.0

x inside diameter : 2.0 x length mm : 600

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values ____

BEGINNING OF DELIVERY

Test pressure bar : Tolerance bar : +- 1.0

Prestroke mm : 2.90 Tolerance mm : + 0.05

Check

tolerance mm : + 0.10

Rack travel in mm: 15.00 Tolerance mm : + 1.50

Firing order : 1-5-3-6-2-

: 0-60-120-180-240 Phasing

: -300

: +- 0.30 Tolerance

Check

tolerance *NW : + 0.75

Start of delivery blocking

Tolerance : \leftarrow 0.50

Check

tolerance $^{\circ}NW$: \leftarrow 0.75

Barrel no. : 1

BASIC SETTING

Rated speed rpm : 1000

Rack travel in mm: 14.45 Tolerance mm: \leftarrow 0.05

Del. quantity

cm3/1000 strokes : 213.0

cm3/1000 strokes	: +- 1.0	+	
		_ + rack travel mm	: 4.00
Check tolerance		Rated speed rpm	
cm3/1000s.	: +- 4.0	+ Tolerance 1/min	
CHEF (DOGS)	4.0	T Total Re 17 III 11	
Spreed		− ∔ rack travel mm	
cm3/1000 strokes	: 8.0	+ Tolerance mm	: ← 0.50
		_ Rated speed rpm	: 1350
Check tolerance		-	
cm3/1000s.	: 12.0	1	
		+	
Rated speed rpm	: 325	+ LOW IDLE	
		+	
mark & area design		†	
Rack travel in m		+ control lever	70.0
Tolerance mm	: ← 0.10	+ position degree	
Del. quantity		+ tolerance degree	: +- 6.0
cm3/1000 strokes	: 30.5	+	
cm3/1000 strokes	: 3.0	+ Testing:	
Check tolerance		1	
Check tolerance cm3/1000s.	: +- 5.0	Rated speed rpm	: 325
Spreed	• • • • • • • • • • • • • • • • • • • •	rack travel mm	
cm3/1000 strokes	. 50	Tolerance mm	
Check tolerance		T loterative min	. +- 0.10
		T Bodad anada man	. 275
cm3/1000s.	: 9.0	+ Rated speed rpm	: 275
		CRT mma min.	·> 8.00
(B) SETTING OF IN	LIECTION PLIMP	1	. > 0.00
WITH GOVERNOR	OFCLIOIA LOLII	Rated speed rpm	. /25
MILL GOVEKNOK		T Rated speed (pill	. 423
		T	
		TORQUE CONTROL	
FULL LOAD DELIVER	RY AT FULL LOAD STOP	I TORGOE CONTROL	
1000 0000 000100	THE POLE COND STO.	+ Rated speed rpm	: 1000
Rated speed rpm	: 1000	+ rack travel mm	: 14.45
Aneroid pressure		+ Tolerance mm	: +- 0.05
hPa	: 1200		0.05
	. 1200	T Pated speed nom	: 650
Del. quantity	. 247.0	+ Rated speed rpm	
cm3/1000 strokes		+ rack travel mm	
cm3/1000 strokes	: +- 1.0	† Tolerance mm	: +- 0.10
Check tolerance cm3/1000s.		†	44
cm3/1000s.	: ! 4.0	+ Rated speed rpm	: 1100
Spreed		+ rack travel mm	: 14.00
cm3/1000 strokes	: 8.0	rack travel mm Tolerance mm	: ← 0.10
Check tolerance cm3/1000s.		+	
cm3/1000s.	: 12.0	+ Rated speed rpm	: 800
		rack traval mm	47 50
		T I GUN LI GAEL WIN	: 15.50
		+ Tolerance mm	: 13.50 : + 0.10
		rack travel mm Tolerance mm	: + 0.10
CONTROL LEVER	·	Tolerance mm	: + 0.10
CONTROL LEVER		‡	: + 0.10
		ANEROID/ALTITUDE	: + 0.10
control lever		‡	: + 0.10
control lever position degree	: 119.0	ANEROID/ALTITUDE	: + 0.10
control lever	: 119.0	ANEROID/ALTITUDE COMPENSATOR TEST	: + 0.10
control lever position degree tolerance degree	: 119.0	ANEROID/ALTITUDE	: + 0.10
control lever position degree	: 119.0	ANEROID/ALTITUDE COMPENSATOR TEST SETTING	
control lever position degree tolerance degree RATED SPEED	: 119.0 : + 6.0	ANEROID/ALTITUDE COMPENSATOR TEST SETTING Rated speed rpm	: 1000
control lever position degree tolerance degree RATED SPEED rack travel mm	: 119.0 : + 6.0 : 12.90	ANEROID/ALTITUDE COMPENSATOR TEST SETTING Rated speed rpm Pressure hPa	: 1000 : 1200
control lever position degree tolerance degree RATED SPEED rack travel mm Rated speed rpm	: 119.0 : + 6.0 : 12.90 : 1155	ANEROID/ALTITUDE COMPENSATOR TEST SETTING Rated speed rpm Pressure hPa rack travel mm	: 1000 : 1200 : 14.45
control lever position degree tolerance degree RATED SPEED rack travel mm	: 119.0 : + 6.0 : 12.90 : 1155	ANEROID/ALTITUDE COMPENSATOR TEST SETTING Rated speed rpm Pressure hPa	: 1000 : 1200 : 14.45

MEASUREMENT

Pressure hPa : Rated speed rpm : 1000
rack travel mm : 11.30
Tolerance mm : + 0.20

Rated speed rpm : 1000

Pressure hPa : 755
rack travel mm : 13.40
Tolerance mm : + 0.20

Pressure hPa : 280
rack travel mm : 11.50
Tolerance mm : + 0.05

START CUT-OUT

Rated speed rpm : > 100 Rated speed rpm : < 280

Check speed 1/min : > 80 Check

speed 1/min : < 290

FUEL DELIVERY CHARACTERISTICS

Aneroid pressure

hPa : 1200
Rated speed rpm : 800
Del. quantity
cm3/1000 strokes : 197.5
cm3/1000 strokes : + 3.0
Check tolerance
cm3/1000s. : + 6.0
Spreed
cm3/1000 strokes : 8.0

Check tolerance cm3/1000s. : 12.0

Aneroid pressure

hPa : Rated speed rpm : 1000
Del. quantity
cm3/1000 strokes : 129.5
cm3/1000 strokes : + 2.0
Check tolerance

: +- 4.0

BREAKAWAY

cm3/1000s.

Rack travel in mm : 12.90 Rated speed rpm : 1155 Tolerance 1/min : + 15

STARTING FUEL DELIVERY

Rated speed rpm : 100 rack travel mm : 21.00 Tolerance mm : + 1.00 Del. quantity

Del. quantity cm3/1000 strokes : 130.0 cm3/1000 strokes : +- 20.0

Check tolerance

cm3/1000s. : \leftarrow 25.0

LOW IDLE

Rated speed rpm : 325 Del. quantity 30.5 cm3/1000 strokes : cm3/1000 strokes : +-3.0 Check tolerance cm3/1000s. : +-5.0 Spreed cm3/1000 strokes : 5.0 Check tolerance 9.0 cm3/1000s.

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

: 16.10.96 Edition : ISO 4113 Test oil

Combination No. : 0 402 746 643

Injection pump

Pump designation : PES6P120A320LS7362 EP type number : 0 412 726 929

Governor

Governer design. : RQV350...1100PA1201K

Governer no. : 0 421 815 456

Cust. part No. : 1824681091

Customer-spec. information Customer : NAVISTAR : DTA-530 Motor : 245.0 Power KW

TEST BENCH REQUIREMENTS

Inlet line : 4.2

Test oil inlet

temp. °C Tolerance °C **: ←** 2.0

Overflow valve : 2 417 413 076

Inlet press. bar : 2.8 Tolerance bar : + 0.1

Test nozzle holde

: 1 688 901 103 assembly

Opening pressure

: 208.5 : + 1.5 Tolerance bar

Test Lines : 1 680 750 008

Outside diameter : 6.0

x inside diameter : 2.0 x length mm : 600

REMARKS

(A) INJECTION PUMP SETTING VALUES Set equal delivery quant.

per values ____

BEGINNING OF DELIVERY

Test pressure bar : 17.0 Tolerance bar : + 1.0

Prestroke mm 2.90 : +- 0.05 Tolerance ram Check : +- 0.10 tolerance mm

Rack travel in mm: 10.50 Tolerance mm : +- 1.50

Firing order : 1-5-3-6-2-

Phasing : 0-60-120-180-240

: -300 Tolerance : **←** 0.30

Check

tolerance *NW : +- 0.75

BASIC SETTING

Rated speed rpm : 1000

Rack travel in mm: 14.65 Tolerance mm : +- 0.05

Del. quantity

cm3/1000 strokes : 278.5

cm3/1000 strokes : + 1.0

Check tolerance cm3/1000s. : +- 4.0

Spreed

cm3/1000 strokes : 8.0

Check tolerance	+
cm3/1000s. : 12.0	
Rated speed rpm : 350	LOW IDLE
	Į.
Rack travel in mm : 5.90 Tolerance mm : ← 0.10	+ control lever + position degree : 78.0
Del. quantity	tolerance degree : +- 6.0
cm3/1000 strokes : 24.0	+ Tanking
cm3/1000 strokes : +- 3.0 Check tolerance	Testing:
cm3/1000s. : +- 5.0	Rated speed rpm : 350
Spreed cm3/1000 strokes : 5.0	+ rack travel mm : 5.90 + Tolerance mm : +- 0.10
Check tolerance	+
cm3/1000s. : 9.0	Rated speed rpm : 275
(D) SETTING OF THESETION DIMO	+ CRT mm min. :> 8.00
(B) SETTING OF INJECTION PUMP WITH GOVERNOR	Rated speed rpm : 425
FULL LOAD DELIVERY AT FULL LOAD STOP	TORQUE CONTROL
FOLL LOAD DELIVERY AT FOLL LOAD STOP	Rated speed rpm : 1000
Rated speed rpm : 1000	+ rack travel mm : 14.65 + Tolerance mm : + 0.05
Aneroid pressure hPa : 1700	+ Toterance mm : + 0.05
Del. quantity	+ Rated speed rpm : 650
cm3/1000 strokes : 278.5 cm3/1000 strokes : + 1.0	+ rack travel mm : 13.75 + Tolerance mm : + 0.10
Check tolerance	+
cm3/1000s. : +- 4.0 Spreed	Rated speed rpm : 750 rack travel mm : 14.00
cm3/1000 strokes : 8.0	Tolerance mm : + 0.10
Check tolerance cm3/1000s. : 12.0	İ
	ANEROID/ALTITUDE COMPENSATOR TEST
CONTROL LEVER	İ
	SETTING
control lever position degree : 121.0	+ Rated speed rpm : 1000
tolerance degree : + 6.0	Pressure hPa : 1700
RATED SPEED	+ rack travel mm : 14.65 + Tolerance mm : + 0.05
	+
rack travel mm : 13.50 Rated speed rpm : 1065	+ MEASUREMENT
Tolerance 1/min : + 15	Pressure hPa : -
rack travel mm : 4.00	Rated speed rpm : 1000 rack travel mm : 10.55
Rated speed rpm : 1175	Tolerance mm : + 0.20
Tolerance 1/min : +- 5	Poted around : 1000
rack travel mm : 0.50	+ Rated speed rpm : 1000
Tolerance mm : + 0.50	Pressure hPa : 1130
Rated speed rpm : 1225	+ rack travel mm : 13.50

Tolerance mm	: 0.20
Pressure hPa	: 420
rack travel mm	11.55
Tolerance mm	· + 0.05
TO COT COTTON MANY	
START CUT-OUT	
Rated speed rpm	
Rated speed rom	: < 280
Check	
speed 1/min	; > 80
Check speed 1/min	: < 290
Speed Triatti	. \ 270
FUEL DELIVERY CHA	RACTERISTICS
Aneroid pressure	
hPa	: 1700
Rated speed rpm Del. quantity	: 650
cm3/1000 strokes	: 262.5
cm3/1000 strokes	: ← 3.0
Check tolerance	
cm3/1000s.	: ← 6.0
Spreed cm3/1000 strokes	: 8.0
Check tolerance	. 6.0
cm3/1000s.	: 12.0
Aneroid pressure	
hPa	: -
Rated speed rpm	: 650
Del. quantity cm3/1000 strokes	: 135.5
cm3/1000 strokes	: + 2.0
Check tolerance	. 2
cm3/1000s.	: ← 4.0
BREAKAWAY	
Rack travel in mm	: 13.50
Rated speed rpm Tolerance 1/min	: + 15
STARTING FUEL DEL	IVERY
Rated speed rpm	: 100
rack travel mm	: 10.70
Tolerance mm	: ← 0.50
Del. quantity cm3/1000 strokes	: 168.0
cm3/1000 strokes	
J 1000 001 0RC3	2010

Check tolerance cm3/1000s. : +- 25.0

LOW IDLE

Rated speed rpm : 350

Del. quantity

cm3/1000 strokes : 24.0

cm3/1000 strokes : + 3.0

Check tolerance

cm3/1000s. : + 5.0

Spreed

cm3/1000 st okes : 5.0

Check tolerance

cm3/1000s. : 9.0

Note remarks

Refer to Service Info for test and adjustment instructions.
See microcard(s) W400/...

Edition : 16.10.96 Test oil : ISO 4113

Combination No. : 0 402 746 644

Injection pump

Pump designation : PES6P120A320LS7362 EP type number : 0 412 726 929

Governor

Governer design. : RQV350...1100PA1202K

Governer no. : 0 421 815 457

Cust. part No. : 1824682091

Customer—spec. information
Customer : NAVISTAR
Motor : DTA-530
Power KW : 245.0

TEST BENCH REQUIREMENTS

Inlet line : 4.2

Test oil inlet

temp. *C : 40 Tolerance *C : +- 2.0

Overflow valve : 2 417 413 076

Inlet press. bar : 2.8
Tolerance bar : + 0.1

Test nozzle holde

assembly : 1 688 901 103

Opening pressure

bar : 208.5 Tolerance bar : + 1.5

Test Lines : 1 680 750 008

Outside diameter : 6.0

x inside diameter: 2.0 x length mm : 600

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values ____

BEGINNING OF DELIVERY

Test pressure bar : 17.0 Tolerance bar : → 1.0

Prestroke mm : 2.90 Tolerance mm : +- 0.05

Check

tolerance mm : ← 1.10

Rack travel in mm : 10.50 Tolerance mm : + 1.50

Firing order : 1-5-3-6-2-

: 4

Phasing : 0-60-120-180-240

: -300

Tolerance : + 0.30

Check

tolerance $^{\circ}NW$: \leftarrow 0.75

BASIC SETTING

Rated speed rpm : 1000

Rack travel in mm : 14.65 Tolerance mm : + 0.05

Del. quantity

cm3/1000 strokes : 278.5

cm3/1000 strokes : +- 1.0

Check tolerance cm3/1000s. : +- 4.0

Spreed

cm3/1000 strokes : 8.0

Check tolerance cm3/1000S.	: 12.0	‡	
Rated speed rpm	: 350	LOW IDLE	
Rack travel in mm Tolerance mm Del. quantity cm3/1000 strokes cm3/1000 strokes	: + 0.10 : 24.5	control lever position degree tolerance degree Testing:	
Check tolerance cm3/1000s. Spreed cm3/1000 strokes Check tolerance cm3/1000s.		Rated speed rpm rack travel mm Tolerance mm Rated speed rpm	: 5.90 : + 0.10 : 275
(B) SETTING OF IN	JECTION PUMP	CRT mm min. Rated speed rpm	
		TORQUE CONTROL	
FULL LOAD DELIVER Rated speed rpm Aneroid pressure		Rated speed rpm rack travel mm Tolerance mm	
hPa Del. quantity cm3/1000 strokes cm3/1000 strokes		Rated speed rpm rack travel mm Tolerance mm	
Check tolerance cm3/1000s. Spreed cm3/1000 strokes Check tolerance	: +- 4.0 : 8.0	Rated speed rpm rack travel mm Tolerance mm	: 14.15
cm3/1000s.	: 12.0	Rated speed rpm rack travel mm Tolerance mm	
CONTROL LEVER		ANEROID/ALTITUDE	
control lever position degree tolerance degree		+ COMPENSATOR TEST + SETTING	
RATED SPEED		Rated speed rpm	: 1000
rack travel mm Rated speed rpm Tolerance 1/min	: 1160	Pressure hPa rack travel mm Tolerance mm	: 1800 : 14.65
rack travel mm Rated speed rpm Tolerance 1/min		MEASUREMENT Pressure hPa	: - : 1000
rack travel mm Tolerance mm Rated speed rpm	: 0.50 : + 0.50 : 1350	Rated speed rpm rack travel mm Tolerance mm	: 10.60

Rated speed rpm	: 1000
Pressure hPa rack travel mm Tolerance mm	: 1220 : 14.00 : +- 0.20
Pressure hPa rack travel mm Tolerance mm	: 440 : 11.85 : + 0.05
START CUT-OUT	
Rated speed rpm Rated speed rpm	: > 100 : < 280
Check speed 1/min Check	: > 80
speed 1/min	: < 290
FUEL DELIVERY CHA	ARACTERISTICS
Aneroid pressure hPa Rated speed rpm Del. quantity cm3/1000 strokes Check tolerance cm3/1000s. Spreed cm3/1000 strokes Check tolerance cm3/1000s. Aneroid pressure hPa Rated speed rpm Del. quantity cm3/1000 strokes cm3/1000 strokes cm3/1000 strokes cm3/1000 strokes cm3/1000 strokes cm3/1000 strokes cm3/1000s.	: + 3.0 : + 6.0 : 8.0 : 12.0 : - : 1000 : 155.5
BREAKAWAY Rack travel in mm Rated speed rpm Tolerance 1/min	: 13.05 : 1160
Tolerance 1/min STARTING FUEL DEL	: +- 15
Rated speed rpm rack travel mm	: 100 : 10.80

Tolerance mm Del. quantity	:	+-	0.50
cm3/1000 strokes cm3/1000 strokes	•	+-	168.0 20.0
Check tolerance cm3/1000s.	:	+-	25.0

1	ULI	TDI	

Rated speed rpm Del. quantity	:	350	
	: +	24.5 3.0	
Check tolerance cm3/1000s.	• •	5.0	
Spreed	• •-		
cm3/1000 strokes Check tolerance	:	5.0	
cm3/1000s.	:	9.0	

End of test specification sheet

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

Edition Test oil

: 14,10,96 : ISO 4113

Combination No. : 9 400 030 721

Injection pump

Pump designation: PES6A95D320/3RS2895

EP type number : 9 410 037 238

Governor

Governer design. : RSV475...1250A0C839R

Governer no.

Cust. part No. : 3929601

Customer-spec. information Customer : CDC Motor : 6BTA : 130.0 Power KW

TEST BENCH REQUIREMENTS

Inlet line : 3.2

Test oil inlet

temp. °C 40 Tolerance °C

Overflow valve : 1 417 413 047

Inlet press. bar : 2.0

Test nozzle holde

: 1 688 901 101 assembly

Opening pressure

208.5 Tolerance bar

Test lines : 1 680 750 014

Outside diameter : 6.0

x inside diameter : 2.0 600 x length mm :

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values _____

BEGINNING OF DELIVERY

Test pressure bar: 17.0 Tolerance bar : + 1.0

Prestroke mm : 2.70
Tolerance mm : +- 0.05 Check

tolerance mm : + 0.10

Rack travel in mm: 10.50 Tolerance mm : + 1.50

Firing order : 1-5-3-6-2-

: 4

Phasing : 0-60-120-180-240

: -300

Start of delivery blocking

*NW after s.o.d. : 9.00 Tolerance : **←** 0.10

Check

tolerance *NW : +- 0.29

Barrel no. : 1

BASIC SETTING

Rated speed rpm : 1250

Rack travel in mm : 12.70 Tolerance mm : + 0.05

Del. quantity cm3/1000 strokes : 107.5

7.4000	
cm3/1000 strokes : + 1.0	- CONTROL LEVER
Check tolerance cm3/1000s. : +- 3.0	- control lever - position degree : 108.0
Spreed cm3/1000 strokes : 3.5	tolerance degree : +- 4.0 - RATED SPEED
Check tolerance	
cm3/1000s. : 6.0 -	rack travel mm : 11.80 Rated speed rpm : 1325
Rated speed rpm : 550	- Tolerance 1/min : +- 5
Rack travel in mm : 5.50 - Tolerance mm : + 0.10 -	rack travel mm : 5.80 - Rated speed rpm : 1385 - Tolerance 1/min : +- 5
Del. quantity - cm3/1000 strokes : 17.5 -	rack travel mm : 0.85
cm3/1000 strokes : +- 2.0 Check tolerance	- Tolerance mm : +- 0.55 - Rated speed rpm : 1450
cm3/1000s. : +- 4.5 Spreed	rack travel mm : 5.80
cm3/1000 strokes : 3.5	Rated speed rpm : 1385
Check tolerance - cm3/1000s. : 5.5 -	
	=
(B) SETTING OF INJECTION PUMP WITH GOVERNOR	control lever position degree : 78.0
	- position degree : 78.0 - tolerance degree : +- 4.0
WITH GOVERNOR	- position degree : 78.0 - tolerance degree : +- 4.0 - - Setting point w/out bumper spring
GUIDE SLEEVE POSITION Rated speed rpm : 800 Rack travel in mm : 0.50	- position degree : 78.0 - tolerance degree : +- 4.0
GUIDE SLEEVE POSITION Rated speed rpm : 800	- position degree : 78.0 - tolerance degree : +- 4.0 - Setting point w/out bumper spring - Rated speed rpm : 550
WITH GOVERNOR GUIDE SLEEVE POSITION Rated speed rpm : 800 Rack travel in mm : 0.50 Tolerance mm : + 0.20 governor spring	position degree : 78.0 tolerance degree : +- 4.0 Setting point w/out bumper spring Rated speed rpm : 550 rack travel mm : 5.00 Testing:
WITH GOVERNOR GUIDE SLEEVE POSITION Rated speed rpm : 800 Rack travel in mm : 0.50 Tolerance mm : + 0.20	position degree : 78.0 tolerance degree : + 4.0 Setting point w/out bumper spring Rated speed rpm : 550 rack travel mm : 5.00 Testing: Rated speed rpm : 550 rack travel mm : 550 rack travel mm : 550
GUIDE SLEEVE POSITION Rated speed rpm : 800 Rack travel in mm : 0.50 Tolerance mm : + 0.20 governor spring pre-tension click setting x : 4.50	position degree : 78.0 tolerance degree : + 4.0 Setting point w/out bumper spring Rated speed rpm : 550 rack travel mm : 5.00 Testing: Rated speed rpm : 550 rack travel mm : 5.50 Tolerance mm : 5.50
GUIDE SLEEVE POSITION Rated speed rpm : 800 Rack travel in mm : 0.50 Tolerance mm : + 0.20 governor spring pre-tension click setting x : 4.50 FULL LOAD DELIVERY AT FULL LOAD STOP	position degree : 78.0 tolerance degree : + 4.0 Setting point w/out bumper spring Rated speed rpm : 550 rack travel mm : 5.00 Testing: Rated speed rpm : 550 rack travel mm : 5.50 Tolerance mm : + 0.10 Rated speed rpm : 100
WITH GOVERNOR GUIDE SLEEVE POSITION Rated speed rpm : 800 Rack travel in mm : 0.50 Tolerance mm : + 0.20 governor spring pre-tension click setting x : 4.50 FULL LOAD DELIVERY AT FULL LOAD STOP Rated speed rpm : 1250 Aneroid pressure	position degree : 78.0 tolerance degree : + 4.0 Setting point w/out bumper spring Rated speed rpm : 550 rack travel mm : 5.00 Testing: Rated speed rpm : 550 rack travel mm : 5.50 Tolerance mm : 5.50
GUIDE SLEEVE POSITION Rated speed rpm : 800 Rack travel in mm : 0.50 Tolerance mm : + 0.20 governor spring pre-tension click setting x : 4.50 FULL LOAD DELIVERY AT FULL LOAD STOP Rated speed rpm : 1250 Aneroid pressure hPa : 900	position degree : 78.0 tolerance degree : + 4.0 Setting point w/out bumper spring Rated speed rpm : 550 rack travel mm : 5.00 Testing: Rated speed rpm : 550 rack travel mm : 5.50 Tolerance mm : + 0.10 Rated speed rpm : 100
WITH GOVERNOR GUIDE SLEEVE POSITION Rated speed rpm : 800 Rack travel in mm : 0.50 Tolerance mm : + 0.20 governor spring pre-tension click setting x : 4.50 FULL LOAD DELIVERY AT FULL LOAD STOP Rated speed rpm : 1250 Aneroid pressure hPa : 900 Del. quantity cm3/1000 strokes : 107.5	position degree : 78.0 tolerance degree : + 4.0 Setting point w/out bumper spring Rated speed rpm : 550 rack travel mm : 5.00 Testing: Rated speed rpm : 550 rack travel mm : 5.50 Tolerance mm : + 0.10 Rated speed rpm : 100 CRT mm min. : > 19.00
GUIDE SLEEVE POSITION Rated speed rpm : 800 Rack travel in mm : 0.50 Tolerance mm : + 0.20 governor spring pre-tension click setting x : 4.50 FULL LOAD DELIVERY AT FULL LOAD STOP Rated speed rpm : 1250 Aneroid pressure hPa : 900 Del. quantity cm3/1000 strokes : 107.5 cm3/1000 strokes : + 1.0 Check tolerance	position degree : 78.0 tolerance degree : + 4.0 Setting point w/out bumper spring Rated speed rpm : 550 rack travel mm : 5.00 Testing: Rated speed rpm : 550 rack travel mm : 5.50 Tolerance mm : + 0.10 Rated speed rpm : 100 CRT mm min. : > 19.00 TORQUE CONTROL Rated speed rpm : 1250 rack travel mm : 12.70
GUIDE SLEEVE POSITION Rated speed rpm : 800 Rack travel in mm : 0.50 Tolerance mm : + 0.20 governor spring pre-tension click setting x : 4.50 FULL LOAD DELIVERY AT FULL LOAD STOP Rated speed rpm : 1250 Aneroid pressure hPa : 900 Del. quantity cm3/1000 strokes : 107.5 cm3/1000 strokes : + 1.0 Check tolerance cm3/1000s : + 3.0 Spreed	position degree : 78.0 tolerance degree : + 4.0 Setting point w/out bumper spring Rated speed rpm : 550 rack travel mm : 5.00 Testing: Rated speed rpm : 550 rack travel mm : 5.50 Tolerance mm : + 0.10 Rated speed rpm : 100 CRT mm min. : > 19.00 TORQUE CONTROL Rated speed rpm : 1250
GUIDE SLEEVE POSITION Rated speed rpm : 800 Rack travel in mm : 0.50 Tolerance mm : + 0.20 governor spring pre-tension click setting x : 4.50 FULL LOAD DELIVERY AT FULL LOAD STOP Rated speed rpm : 1250 Aneroid pressure hPa : 900 Del. quantity cm3/1000 strokes : 107.5 cm3/1000 strokes : + 1.0 Check tolerance cm3/1000s. : + 3.0	position degree : 78.0 tolerance degree : + 4.0 Setting point w/out bumper spring Rated speed rpm : 550 rack travel mm : 5.00 Testing: Rated speed rpm : 550 rack travel mm : 5.50 Tolerance mm : + 0.10 Rated speed rpm : 100 CRT mm min. : > 19.00 TORQUE CONTROL Rated speed rpm : 1250 rack travel mm : 12.70

ANEROID/ALTITUDE COMPENSATOR TEST

SETTING

Rated speed rpm : 500 Pressure hPa : 900

MEASUREMENT

Pressure hPa Rated speed rpm : 500 rack travel mm : 10.70 : +- 0.10 Tolerance mm

Rated speed rpm : 500

Pressure hPa : 480 rack travel mm : 12.20 : +- 0.20 Tolerance mm

Pressure hPa : 350 rack travel mm : 11.40 Tolerance mm : + 0.20

FUEL DELIVERY CHARACTERISTICS

Aneroid pressure

hPa Rated speed rpm : 500

Del. quantity

cm3/1000 strokes : 72.5 cm3/1000 strokes : \leftarrow 1.0

Check tolerance

cm3/1000s. : +- 3.0

BREAKAWAY

Rack travel in mm : 11.80 Rated speed rpm : 1325 Tolerance 1/min : +-

STARTING FUEL DELIVERY

Rated speed rpm : 100 rack travel mm : 20.50
Tolerance mm : + 0.50
Del. quantity

Del. quantity

cm3/1000 strokes : 121.5 cm3/1000 strokes : + 10.0

Check tolerance cm3/1000s. : + 15.0

LOW IDLE

Rated speed rpm : 550 Del. quantity

cm3/1000 strokes : 17.5 cm3/1000 strokes : +- 2.0

Check tolerance

cm3/1000s. : +-4.5

Spreed

cm3/1000 strokes : 3.5 Check tolerance

cm3/1000s. 5.5

End of test specification sheet

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

: 16.10.96 Edition Test oil : ISO 4113

Combination No. : 9 400 030 730

Injection pump

Pump designation : PES6A95D320/3RS2881

EP type number : 9 410 037 215

Governor

Governer design. : RSV475...1100A0C844R

Governer no. : 9 420 034 710

Cust. part No. : 3928599

Customer-spec. information

Customer : CDC Motor : 6BTA Power KW : 111.0

TEST BENCH REQUIREMENTS

Inlet line : 3.2

Test oil inlet

: 40 : +- 2.0 temp. °C Tolerance °C

Overflow valve : 1 417 413 047

Inlet press. bar : 2.0
Tolerance bar : +- 0.1

Test nozzle holde

: 1 688 901 101 assembly

Opening pressure

: 208.5 bar Tolerance bar : +- 1.5

Test lines : 1 680 750 014

Outside diameter : 6.0

B06

x inside diameter: 2.0 x length mm : 600

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values _____

BEGINNING OF DELIVERY

Test pressure bar: 17.0 Tolerance bar : + 1.0

Prestroke mm : 2.85 Tolerance mm : + 0.05

Check

tolerance mm : +- 0.10

Rack travel in mm: 10.50 Tolerance mm : \leftarrow 1.50

: 1-5-3-6-2-Firing order

Phasing : 0-60-120-180-240

: -300

: +- 0.50 Tolerance

Check

tolerance *NW : +- 0.75

Start of delivery blocking

*NW after s.o.d. : 8.50

Tolerance Check

: +- 0.50

tolerance °NW : +- 0.75

Barrel no.

: 1

BASIC SETTING

Rated speed rpm : 1100

Rack travel in mm: 11.55

Tolerance mm : \leftarrow 0.05

+	Check tolerance
Del. quantity cm3/1000 strokes : 96.0	cm3/1000s. : 6.0
cm3/1000 strokes : + 1.0	CONTROL LEVER
Check tolerance cm3/1000s. : + 3.0	control lever position degree : 106.0
Spreed cm3/1000 strokes : 3.5	tolerance degree : +- 4.0 RATED SPEED
Check tolerance cm3/1000s. : 6.0	rack travel mm : 10.50 Rated speed rpm : 1155
Rated speed rpm : 475	Tolerance 1/min : + 5
Rack travel in mm: 5.50 Tolerance mm: + 0.10	rack travel mm : 6.00 Rated speed rpm : 1225 Tolerance 1/min : +- 5
Del. quantity cm3/1000 strokes : 22.0 + cm3/1000 strokes : + 2.0 + cm3/1000s. : + 4.5	rack travel mm : 0.85 Tolerance mm : + 0.55 Rated speed rpm : 1300
Spreed + Cm3/1000 strokes : 3.5 + Check tolerance	rack travel mm : 6.00 Rated speed rpm : 1225
cm3/1000s. : 5.5	
(B) SETTING OF INJECTION PUMP WITH GOVERNOR	LOW IDLE control lever position degree : 85.0
GUIDE SLEEVE POSITION +	tolerance degree : +- 4.0
Rated speed rpm : 800 +	Setting point w/out bumper spring
Rack travel in mm: 0.50 Tolerance mm: + 0.20	Rated speed rpm : 475 rack travel mm : 5.00
governor spring	Testing:
pre-tension click setting x : 4.00	Rated speed rpm : 475 rack travel mm : 5.50 Tolerance mm : +- 0.10
FULL LOAD DELIVERY AT FULL LOAD STOP	Rated speed rpm : 100
Rated speed rpm : 1100 + Aneroid pressure	CRT mm min. : > 19.00
hPa : 900 + Del. quantity cm3/1000 strokes : 96.0 +	TORQUE CONTROL
cm3/1000 strokes : + 1.0 + Check tolerance +	Rated speed rpm : 1100 rack travel mm : 11.55
cm3/1000s. : +- 3.0 +- spreed +- cm3/1000 strokes : 3.5 +- 3.0	Tolerance mm : +- 0.05 Rated speed rpm : 1000

rack travel mm Tolerance mm	: +-	12.50 0.10

Rated speed rpm : 800 rack travel mm : 12.60 Tolerance mm : + 0.20

ANEROID/ALTITUDE COMPENSATOR TEST

SETTING

Rated speed rpm : 500 Pressure hPa : 900

MEASUREMENT

Pressure hPa : Rated speed rpm : 500
rack travel mm : 9.90
Tolerance mm : + 0.10

Rated speed rpm : 500

Pressure hPa : 600 rack travel mm : 11.90 Tolerance mm : +-- 0.20

Pressure hPa : 360 rack travel mm : 10.40 Tolerance mm : + 0.20

FUEL DELIVERY CHARACTERISTICS

Aneroid pressure

hPa : 900 Rated speed rpm : 1000

Del. quantity

cm3/1000 strokes : 110.0
cm3/1000 strokes : +- 2.0
Check tolerance

theth toterance

cm3/1000s. : +- 4.0

Aneroid pressure

hPa : -Rated speed rpm : 500

Del. quantity

cm3/1000 strokes : 77.0 cm3/1000 strokes : +- 1.0

Check tolerance

cm3/1000s. : +- 3.0

BREAKAWAY

Rack travel in mm: 10.50 Rated speed rpm: 1155 Tolerance 1/min: +- 5

STARTING FUEL DELIVERY

Rated speed rpm : 100 rack travel mm : 20.50 Tolerance mm : + 0.50

Del. quantity

cm3/1000 strokes : 120.5 cm3/1000 strokes : + 10.0

Check tolerance cm3/1000s. : +- 15.0

LOW IDLE

Rated speed rpm : 475

Del. quantity

cm3/1000 strokes : 22.0 cm3/1000 strokes : + 2.0 Check tolerance

cm3/1000s.

Spreed cm3/1000 strokes : 3.5

4.5

Check tolerance

cm3/1000s. : 5.5

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

: 15.10.96 Edition Test oil : ISO 4113

Combination No. : 9 400 030 736

Injection pump

Pump designation : PES6A95D320/3RS2881

EP type number : 9 410 037 215

Governor

Governer design. :

Governer no. : 9 420 034 715

Cust. part No. : 3929769

Customer-spec. information Customer : CDC : 6BT Motor

Power KW : 88.0

TEST BENCH REQUIREMENTS

Inlet line : 3.2

Test oil inlet

temp. °C Tolerance °C 2.0

Overflow valve : 1 417 413 047

Inlet press. bar : 2.0
Tolerance bar : + 0.1

Test nozzle holde

: 1 688 901 101 assembly

Opening pressure

: 208.5 bar Tolerance bar : + 1.5

Test Lines : 1 680 750 014

Outside diameter : 6.0

B09

x inside diameter: 2.0 600 x length mm :

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant. per values _____

BEGINNING OF DELIVERY

Test pressure bar : 17.0 Tolerance bar : + 1.0

: 2.85 : + 0.05 2.85 Prestroke mm

Tolerance mm Check

tolerance mm : **←** 0.10

Rack travel in mm: 10.50 Tolerance mm : +- 1.50

Firing order : 1-5-3-6-2-

: 4

Phasing : 0-60-120-180-240

: -300

Tolerance : +- 0.50

Check

tolerance *NW : **←** 0.75

Start of delivery blocking

*NW after s.o.d. : 7.00 Tolerance : +- 0.50

Check

tolerance *NW : +~ 0.75

Barrel no. : 1

BASIC SETTING

Rated speed rpm : 1200

Rack travel in mm : 9.55

Tolerance mm : +- 0.05

T	Check tolerance
Del. quantity cm3/1000 strokes : 80.0	cm3/1000s. : 6.0
cm3/1000 strokes : + 1.0	CONTROL LEVER
Check tolerance cm3/1000s. : + 3.0	control lever position degree : 114.0
Spreed	tolerance degree : +- 4.0 RATED SPEED
Check tolerance cm3/1000s. : 6.0	rack travel mm : 8.50 Rated speed rpm : 1280
Rated speed rpm : 425	Tolerance 1/min : +- 5
Rack travel in mm: 5.10 + Tolerance mm: : + 0.10 + Del. quantity	rack travel mm : 5.60 Rated speed rpm : 1335 Tolerance 1/min : +- 5
cm3/1000 strokes : 18.5 cm3/1000 strokes : + 2.0 Check tolerance cm3/1000s. : + 4.5	rack travel mm : 0.85 Tolerance mm : + 0.55 Rated speed rpm : 1465
Spreed cm3/1000 strokes : 3.5 Check tolerance	rack travel mm : 5.60 Rated speed rpm : 1335
cm3/1000s. : 5.5	
(B) SETTING OF INJECTION PUMP WITH GOVERNOR	LOW IDLE
	position degree : 88.0 tolerance degree : +- 4.0
GUIDE SLEEVE POSITION	position degree : 88.0 tolerance degree : + 4.0 Setting point w/out bumper spring
GUIDE SLEEVE POSITION Rated speed rpm : 800	tolerance degree : + 4.0 Setting point w/out bumper spring
+	tolerance degree : + 4.0 Setting point w/out bumper spring
Rated speed rpm : 800 Rack travel in mm : 0.50 Tolerance mm : + 0.20	tolerance degree : + 4.0 Setting point w/out bumper spring Rated speed rpm : 425
Rated speed rpm : 800 + Rack travel in mm : 0.50 +	tolerance degree : + 4.0 Setting point w/out bumper spring Rated speed rpm : 425 rack travel mm : 4.60
Rated speed rpm : 800 Rack travel in mm : 0.50 Tolerance mm : + 0.20 governor spring pre-tension	tolerance degree : +- 4.0 Setting point w/out bumper spring Rated speed rpm : 425 rack travel mm : 4.60 Testing: Rated speed rpm : 425 rack travel mm : 5.10
Rated speed rpm : 800 Rack travel in mm : 0.50 Tolerance mm : + 0.20 governor spring pre-tension click setting x : 4.75 FULL LOAD DELIVERY AT FULL LOAD STOP Rated speed rpm : 1200 Aneroid pressure	tolerance degree : +- 4.0 Setting point w/out bumper spring Rated speed rpm : 425 rack travel mm : 4.60 Testing: Rated speed rpm : 425 rack travel mm : 5.10 Tolerance mm : +- 0.10
Rated speed rpm : 800 Rack travel in mm : 0.50 Tolerance mm : + 0.20 governor spring pre-tension click setting x : 4.75 FULL LOAD DELIVERY AT FULL LOAD STOP Rated speed rpm : 1200 Aneroid pressure hPa : - Del. quantity	tolerance degree : + 4.0 Setting point w/out bumper spring Rated speed rpm : 425 rack travel mm : 4.60 Testing: Rated speed rpm : 425 rack travel mm : 5.10 Tolerance mm : + 0.10 Rated speed rpm : 100
Rated speed rpm : 800 Rack travel in mm : 0.50 Tolerance mm : + 0.20 governor spring pre-tension click setting x : 4.75 FULL LOAD DELIVERY AT FULL LOAD STOP Rated speed rpm : 1200 Aneroid pressure hPa : - Del. quantity cm3/1000 strokes : 80.0 cm3/1000 strokes : + 1.0 Check tolerance	tolerance degree : + 4.0 Setting point w/out bumper spring Rated speed rpm : 425 rack travel mm : 4.60 Testing: Rated speed rpm : 425 rack travel mm : 5.10 Tolerance mm : + 0.10 Rated speed rpm : 100 CRT mm min. : > 19.00 TORQUE CONTROL Rated speed rpm : 1200 rack travel mm : 9.55
Rated speed rpm : 800 Rack travel in mm : 0.50 Tolerance mm : + 0.20 governor spring pre-tension click setting x : 4.75 FULL LOAD DELIVERY AT FULL LOAD STOP Rated speed rpm : 1200 Aneroid pressure hPa : - Del. quantity cm3/1000 strokes : 80.0 cm3/1000 strokes : + 1.0	tolerance degree : + 4.0 Setting point w/out bumper spring Rated speed rpm : 425 rack travel mm : 4.60 Testing: Rated speed rpm : 425 rack travel mm : 5.10 Tolerance mm : + 0.10 Rated speed rpm : 100 CRT mm min. : > 19.00 TORQUE CONTROL Rated speed rpm : 1200

BREAKAWAY

Rack travel in mm : 8.50
Rated speed rpm : 1280
Tolerance 1/min : + 5

STARTING FUEL DELIVERY

Rated speed rpm : 100 rack travel mm : 20.50 Tolerance mm : + 0.50 Del. quantity cm3/1000 strokes : 120.5 cm3/1000 strokes : + 10.0 Check tolerance

cm3/1000s. : + 15.0

LOW IDLE

Rated speed rpm : 425
Del. quantity
cm3/1000 strokes : 18.5
cm3/1000 strokes : + 2.0
Check tolerance
cm3/1000s. : + 4.5
Spreed
cm3/1000 strokes : 3.5
Check tolerance
cm3/1000s. : 5.5

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

Edition : 22.02.96 Test oil : ISO 4113

Combination No. : 0 400 075 952

Injection pump

Pump designation : PES5M55C32ORS170 EP type number : 0 410 055 977

Governor

Governer design. : RSF350/2300M56-5 Governer no. : 0 420 021 112

Cust. part No. :

Customer—spec. information
Customer : MB-PKW
Motor : OM602-ECE
Power KW : 66.0

TEST BENCH REQUIREMENTS

Test oil inlet

temp. °C : 40
Tolerance °C : + 2.0

Overflow valve : 1 469 990 351

Inlet press. bar : 1.0

Test nozzle holde

assembly : 1 688 901 111

Opening pressure

bar : 148.5 Tolerance bar : + 1.5

Test lines : 1 680 750 014

Outside diameter : 6.0

x inside diameter: 2.0 x length mm : 600

REMARKS

(A) INJECTION PUMP SETTING VALUES Set equal delivery quant. per values _____

BEGINNING OF DELIVERY

Test pressure bar : 26.0 Tolerance bar : +- 1.0

Prestroke mm : 2.05
Tolerance mm : + 0.05
Check

tolerance mm : +- 0.10

Rack travel in mm : 21.00 Tolerance mm : + 1.00

Firing order : 1-2-4-5-3

Phasing : 0-72-144-216-288

Start of delivery blocking

*NW after s.o.d. : 19.50 Tolerance : + 0.20

Check

tolerance $^{\circ}NW$: + 0.30

Barrel no. : 1

BASIC SETTING

Rated speed rpm : 1000

Rack travel in mm : 12.35 Tolerance mm : + 0.05

Del. quantity

cm3/1000 strokes : 33.5

cm3/1000 strokes : +- 0.5

Check tolerance cm3/1000s. : +- 1.5

Spreed

cm3/1000 strokes : 2.5

cm3/1000s.	: 3.0
Rated speed rpm	: 350
Rack travel in mm Tolerance mm	: 6.60 : +- 0.10
Del. quantity	
cm3/1000 strokes	: 6.8
cm3/1000 strokes Spreed	: 0.5
cm3/1000 strokes	: 1.0
(B) SETTING OF INJ ⊮ITH GOVERNOR	ECTION PUMP
IDLE STAGE	
Rack travel in mm	: 6.50
Tolerance mm	: ← 0.10
FULL LOAD DELIVERY	AT FULL LOAD STOP
Rated speed rpm	: 1000
Ref. pressure ALDA / ADA hPa	: 1100
ALDA / ADA MPa Del. quantity	: 1100
cm3/1000 strokes	: 33.5
cm3/1000 strokes Check tolerance	: ← 0.5
m3/1000s.	: ← 1.5
Spreed	
cm3/1000 strokes Check tolerance	: 2.5
cm3/1000s.	: 3.0
RATED SPEED	
control lever position degree	: 50.0
COTTON UCALEC	
Rated speed rpm	: 2500
rack travel mm Tolerance mm	: 8.70 : ← 0.20
Rated speed rpm	: 2950
internation and the second	: 0.50

CRT mm max.	:	1.25	
LOW IDLE			
control lever position degree tolerance degree	: +-	14.0	
Setting point w/o Rated speed rpm rack travel mm	:	mper spr 350 6.60	ing
SET IDLE AUXILIAR	Y SPR	ING	
Rated speed rpm rack travel man Tolerance man	: : : +-	400 5.50 0.10	
rack travel mm Rated speed rpm Tolerance 1/min	: : +-	2.00 720 50	
Load pick-up			
Rated speed rpm rack travel mm	: : >	220 9.50	
Rated speed rpm	:	1000	
CRT mm max.	:	1.25	
rack travel mm Rated speed rpm	: :	6.60 350	
TORQUE CONTROL	·		
Rated speed rpm rack travel mm Tolerance mm		1000 12.35 0.05	
Rated speed rpm rack travel mm Tolerance mm		1800 11.80 0.10	
Rated speed rpm rack travel mm Tolerance mm	: +-	2200 11.50 0.10	
ADJUSTMENT TEST A	DA/AL	DA .	
SETTING			
Rated speed rpm	:	1000	

Rated speed rpm : 1000

Ref. pressure ALDA / ADA hPa rack travel mm Tolerance mm MEASUREMENT Rated speed rpm Ref. pressure ALDA / ADA hPa rack travel mm Tolerance mm Ref. pressure ALDA / ADA hPa rack travel mm Tolerance mm	:	cm3/1000 strokes : + 2.0 Check tolerance cm3/1000s. : + 3.0 Spreed cm3/1000 strokes : 2.5 Check tolerance cm3/1000s. : 3.0 STARTING FUEL DELIVERY Rated speed rpm : 100 rack travel mm : > 20.10 Del. quantity cm3/1000 strokes : 52.0 Spreed cm3/1000 strokes : 6.0 Check tolerance cm3/1000s. : 6.0
FUEL DELIVERY CHA	ARACTERISTICS	- † +
Ref. pressure ALDA / ADA hPa Rated speed rpm Del. quantity cm3/1000 strokes cm3/1000 strokes Check tolerance cm3/1000s. Spreed cm3/1000 strokes	: 1800 : 33.8 : + 0.8 : + 1.8	LOW IDLE Rated speed rpm : 350 Del. quantity cm3/1000 strokes : 7.8 Check tolerance cm3/1000s. : + 2.3 Spreed Check tolerance
Check tolerance cm3/1000S.		cm3/1000s. : 1.5
Ref. pressure ALDA / ADA hPa Rated speed rpm Spreed Del. quantity cm3/1000 strokes cm3/1000 strokes Check tolerance cm3/1000s. Spreed cm3/1000 strokes Check tolerance	: 2200 : 35.0 : + 1.0 : + 2.0	control lever position degree : > 49.00 control lever position degree : < 46.50
cm3/1000s.	: 3.0	SETTING PNEUMATIC FAST IDLE (PLA) (PLA) POSITION
HIGH IDLE Ref. pressure ALDA / ADA hPa Rated speed rpm rack travel mm Tolerance mm Del. quantity		control lever position degree : 14.0 tolerance degree : + 2.0 Rated speed rpm : 400 Rack travel in mm : 7.50 Tolerance mm : + 0.80
cm3/1000 strokes	: 24.0	+

Del. quantity cm3/1000 strokes : 10.0 cm3/1000 strokes : +- 3.5

Check tolerance cm3/1000s. : +- 4.5 Vacuum hPa : 400.0

TESTING PNEUMATIC SHUTOFF DEVICE

Rated speed rpm : 350 Vacuum hPa : -450.0

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

Edition : 02.10.96 Test oil : ISO 4113

Combination No. : 0 402 076 801

Injection pump

Pump designation : PES6P120A1320/5RS337

: 2Y

EP type number : 0 412 026 793

Governor

Governer design. : RSV350...1050P1A641

Governer no. : 0 421 833 553

Cust. part No. : 1382923

Customer—spec. information Customer : SCANIA

Motor : DSI1172A,-C1157A

TEST BENCH REQUIREMENTS

Inlet line : 4.2

Vibration

damper

(RoBo diaphragm) : 3.1

Test oil inlet

temp. °C : 40
Tolerance °C : + 2.0

Overflow valve : 1 417 413 025

Inlet press. ber : 2.5
Tolerance bar : + 0.1

Test nozzle holde

assembly : 1 688 901 104

Opening pressure

bar : 251.5 Tolerance bar : +- 1.5 Test lines : 1 680 750 008

Outside diameter : 6.0

x inside diameter: 2.0 x length mm : 600

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values _____

BEGINNING OF DELIVERY

Test pressure bar : 26.0 Tolerance bar : +- 1.0

Prestroke mm : 4.45
Tolerance mm : +- 0.05

Check

tolerance mm : + 0.10

Rack travel in mm : 10.50

Tolerance mm : + 1.50

Firing order : 1-5-3-6-2-

: 4

Phasing : 0-60-120-180-240

: -300

Tolerance : \leftarrow 0.30

Check

tolerance "NW : +- 0.50

Start of delivery mark

Tolerance : + 0.10

Check

tolerance *NW : +- 0.75

Barrel no. : 1

BASIC SETTING

Rated speed rpm : 700

Rack travel in mm: 16.75

Tolerance mm : +- 0.05	+ Check tolerance + cm3/1000s. : 12.0
Del. quantity cm3/1000 strokes : 263.0	‡
cm3/1000 strokes : + 1.0	CONTROL LEVER
Check tolerance cm3/1000s. : +- 4.0	control lever position degree : 33.0 tolerance degree : +- 4.0
Spreed cm3/1000 strokes : 8.0	control lever position degree : 83.0
Check tolerance : 12.0	tolerance degree : +- 4.0
Rack travel in mm : 6.00	ASSEMBLY GOVERNOR SETTING
Tolerance mm : + 0.20 Del. quantity	Rated speed rpm : 750 rack travel mm : 15.70
cm3/1000 strokes : 20.0 cm3/1000 strokes : +- 4.0	+ Rated speed rpm : 788
Check tolerance	+ Tolerance 1/min : +- 4
cm3/1000s. : +- 6.0	+ rack travel mm : 4.00
Spreed	+
cm3/1000 strokes : 5.0	+ rack travel mm : 0.85
Check tolerance cm3/1000s. : 9.0	+ Tolerance mm : + 0.55
cm3/1000s. : 9.0	+ Rated speed rpm : 850
	Rated speed rpm : 751
(B) SETTING OF INJECTION PUMP	Rated speed rpm : 751 rack travel mm : 15.70
WITH GOVERNOR	Rated speed rpm : 789
	+ Tolerance 1/min : +- 4
	rack travel mm : 4.00
GUIDE SLEEVE POSITION	†
Dated aread run . 200	+ rack travel mm : 0.85 + Tolerance mm : + 0.55
Rated speed rpm : 800	+ Tolerance mm : + 0.55 + Rated speed rpm : 850
Rack travel in mm : 0.50	Hatea speed / piii . OSS
Tolerance mm : + 0.20	Rated speed rpm : 752
governor spring	† rack travel mm : 15.70
pre-tension	Rated speed rpm : 790
click setting x : 2.00	+ Tolerance 1/min : + 4
	† rack travel mm : 4.00
FULL LOAD DELIVERY AT FULL LOAD STOP	+ rack travel mm : 0.85
FULL LUAD DELIVERY AT FULL LUAD STOP	Tolerance mm : + 0.55
Rated speed rpm : 700	+ Rated speed rpm : 850
Aneroid pressure	
hPa : 1500	Rated speed rpm : 753 rack travel mm : 15.70
Del. quantity	rack travel mm : 15.70
cm3/1000 strokes : 263.0 cm3/1000 strokes : +- 1.0	+ Rated speed rpm : 791
Check tolerance	+ Tolerance 1/min : + 4
cm3/1000s. : +- 4.0	rack travel mm : 4.00
Spreed	+
cm3/1000 strokes : 8.0	† rack travel mm : 0.85
	→ Tolerance mm : + 0.55

Rated speed rpm	: 850
Rated speed rpm	: 754
rack travel mm	: 15.70
Rated speed rpm	: 792
Tolerance 1/min	: + 4
rack travel mm	: 4.00
rack travel mm	: 0.85
Tolerance mm	: + 0.55
Rated speed rpm	: 850
Rated speed rpm	: 755
rack travel mm	: 15.70
Rated speed rpm	: 793
Tolerance 1/min	: + 4
rack travel mm	: 4.00
rack travel mm	: 0.85
Tolerance mm	: + 0.55
Rated speed rpm	: 850

TORQUE CONTROL

Rated speed rpm	:	700
rack travel mm	:	16.75
Tolerance mm	: +-	0.05

ANEROID/ALTITUDE COMPENSATOR TEST

SETTING

Rated speed rpm	:	500
Pressure hPa	:	1500
rack travel mm	:	16.75
Tolerance mm	: →	 0.05

MEASUREMENT

Pressure hPa	:		-
Rated speed rpm	:		500
rack travel mm	:		13.50
Tolerance mm	:	+-	0.20

Rated speed	man	:	500
-------------	-----	---	-----

Pressure hPa	:	295
rack travel mm	:	14.30
Tolerance mm	: +	- 0.20

Pressure hPa	:	640
rack travel mm	:	16.00
Tolerance mm	: +	- 0.05

FUEL DELIVERY CHARACTERISTICS

Aneroid pressure		
hPa	:	_
Rated speed rpm	:	500

Del. quantity cm3/1000 strokes : 188.0 cm3/1000 strokes : +- 1.0

Check tolerance cm3/1000s. : +- 4.0

STARTING FUEL DELIVERY

Rated speed rpm	:	100
rack travel mm	:	13.50
Tolerance mm	: +	- 0.20
Del. quantity		
cm3/1000 strokes	:	140.0
cm3/1000 strokes	: +	- 20.0

Check tolerance cm3/1000s. : +- 24.0

End of test specification sheet

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Note remarks

Refer to Service Info for test and adjustment instructions.

See microcard(s) W400/...

Edition : 11.10.96 Test oil : ISO 4113

Combination No. : 0 402 076 802

Injection pump

Pump designation : PES6P12OA1320/5RS337

: 3

EP type number : 0 412 026 794

Governor

Governer design. : RSV350...1050P8A643

Governer no. : 0 421 833 555

Cust. part No. : 1385930

Customer-spec. information

Customer : SCANIA

Motor : DSI1171A,-C1156A

TEST BENCH REQUIREMENTS

Inlet line : 4.2

Vibration damper

(RoBo diaphragm) : 3.1

Test oil inlet

temp. °C : 40 Tolerance °C : +- 2.0

Overflow valve : 1 417 413 025

Inlet press. bar : 2.5 Tolerance bar : + 0.1

Test nozzle holde

assembly : 1 688 901 104

Opening pressure

bar : 251.5 Tolerance bar : + 1.5 Test lines : 1 680 750 008

Outside diameter : 6.0

x inside diameter: 2.0 x length mm : 600

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values ____

BEGINNING OF DELIVERY

Test pressure bar : 26.0 Tolerance bar : + 1.0

Prestroke mm : 4.45
Tolerance mm : + 0.05

Tolerance mm : +- 0.05 Check

Lneck

tolerance mm : +- 0.10

Rack travel in mm : 10.50 Tolerance mm : + 1.50

Firing order : 1-5-3-6-2-

: 4

Phasing : 0-60-120-180-240

: -300

Tolerance : \leftarrow 0.30

Check

tolerance *NW : +- 0.50

Start of delivery mark

Tolerance : + 0.30

Check

tolerance °NW : +- 0.75

Barrel no. : 1

BASIC SETTING

Rated speed rpm : 700

. . . .

Rack travel in mm	. 15.35	+ Check tolerance + cm3/1000s. : +- 7.0
Tolerance mm	: + 0.05	Spreed
Del. quantity		cm3/1000 strokes : 8.0 Check tolerance
cm3/1000 strokes	: 226.0	cm3/1000s. : 12.0
cm3/1000 strokes	: + 1.0	
Check tolerance cm3/1000s.	: +- 7.0	CONTROL LEVER control lever
Spreed cm3/1000 strokes	: 8.0	position degree : 54.0 tolerance degree : +- 4.0
Check tolerance cm3/1000s.	: 12.0	control lever position degree : 104.0 tolerance degree : + 4.0
Rated speed rpm	: 350	RATED SPEED
Rack travel in mm Tolerance mm Del. quantity	: +- 0.10	rack travel mm : 14.30 Rated speed rpm : 1095 Tolerance 1/min : +- 5
cm3/1000 strokes cm3/1000 strokes Check tolerance cm3/1000s.		+ rack travel mm : 4.00 + Rated speed rpm : 1195 + Tolerance 1/min : +- 15
Spreed cm3/1000 strokes Check tolerance cm3/1000s.	: 4.0 : 8.0	rack travel mm : 0.85 Tolerance mm : +- 0.55 Rated speed rpm : 1300
(B) SETTING OF INJ WITH GOVERNOR	- -	rack travel mm : 4.00 Rated speed rpm : 1215
GUIDE SLEEVE POSIT	ION -	LOW IDLE
Rated speed rpm	: 800	control lever
Rack travel in mm Tolerance mm		position degree : 73.0 tolerance degree : +- 4.0
governor spring pre-tension click setting x	- - -	control lever position degree : 23.0 tolerance degree : +- 4.0
ctick setting x	. 0.00	Setting point w/out bumper spring
FULL LOAD DELIVERY	AT FULL LOAD STOP	Rated speed rpm : 350 rack travel mm : 4.60
Rated speed rpm Aneroid pressure hPa	: 700 - : 1500 -	- Testing:
Del. quantity cm3/1000 strokes cm3/1000 strokes	: 226.0	Rated speed rpm : 350 rack travel mm : 5.10 Tolerance mm : + 0.10

rack travel mm Rated speed rpm Tolerance 1/min	: 555
TORQUE CONTROL	
Rated speed rpm rack travel mm Tolerance mm	: 700 : 15.35 : ← 0.05
Rated speed rpm rack travel mm Tolerance mm	
ANEROID/ALTITUDE COMPENSATOR TEST	
SETTING	
Rated speed rpm Pressure hPa rack travel mm Tolerance mm	: 500 : 1500 : 15.35 : + 0.05
MEASUREMENT	
Pressure hPa Rated speed rpm rack travel mm Tolerance mm	: - : 500 : 12.10 : +- 0.20
Rated speed rpm	: 500
Pressure hPa rack travel mm Tolerance mm	: 510 : 13.10 : + 0.20
Pressure hPa rack travel mm Tolerance mm	: 780 : 14.50 : + 0.05
FUEL DELIVERY CHA	RACTERISTICS
Aneroid pressure hPa Rated speed rpm Del. quantity cm3/1000 strokes cm3/1000 strokes Check tolerance cm3/1000s.	: 1500 : 1050 : 209.0 : + 4.0 : + 6.0
Aneroid pressure hPa	: -

Rated speed rpm Del. quantity cm3/1000 strokes cm3/1000 strokes Check tolerance cm3/1000s.	: 500 : 150.0 : + 1.0 : + 4.0
BREAKAWAY	
Rack travel in mm Rated speed rpm Tolerance 1/min	: 1095
STARTING FUEL DEL	IVERY
Rated speed rpm rack travel mm Tolerance mm Del. quantity cm3/1000 strokes cm3/1000 strokes Check tolerance cm3/1000s.	: 100 : 12.10 : + 0.20 : 165.0 : + 20.0 : + 24.0
LOW IDLE	
Rated speed rpm Del. quantity cm3/1000 strokes cm3/1000 strokes Check tolerance cm3/1000s. Spreed cm3/1000 strokes Check tolerance cm3/1000s.	: 350 : 18.0 : + 3.0 : + 6.0 : 4.0 : 8.0

Note remarks

Refer to Service Info for test and adj stment instructions. See microcard(s) W400/...

Er tion toil

: 15.10.96 : ISO 4113

Combination No. : 0 402 648 974

Injection pump

Pump designation : PE8P120A320LS7875 EP type number : 0 412 628 881

Governor

Governer design. : RQ250/1150PA1122

Governer no. : 0 421 801 704

Cust. part No. :

Customer-spec. information Customer : DAEWOO : V2=8TC Motor : V2-8TC

TEST BENCH REQUIREMENTS

Inlet line : 3.1

Test oil inlet

temp. °C : 40
Tolerance °C : +- 2.0

Overflow valve : 1 417 413 025

Inlet press. bar : 1.5
Tolerance bar : + 0.1

Test nozzle holde

: 1 688 901 105 assembly

Opening pressure

bar : 208.5 Tolerance bar : + 1.5

Test Lines : 1 680 750 089

Outside diameter : 8.0

x inside diameter: 3.0 x length mm : 600

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values _____

BEGINNING OF DELIVERY

Test pressure bar : 26.0 Tolerance bar : +- 1.0

Prestroke mm : 5.20 Tolerance mm : +- 0.05

Check

tolerance mm : +- 0.10

Rack travel in mm: 16.00 Tolerance mm : + 1.50

Firing order : 8-7-2-6-3

: - 5- 4- 1

Phasing : 0-45-90-135-180

: -225-270-315 Tolerance : \leftarrow 0.30

Check

tolerance $^{\circ}NW$: + 0.50

Start of delivery mark

Tolerance : +- 0.10

Check

tolerance *NW : +- 0.75

Barrel no. : 8

BASIC SETTING

Rated speed rpm : 1150

Rack travel in mm: 13.60 Tolerance mm : +- 0.05

Del. quantity

cm3/1000 strokes : 208.0

		I mudale allegue
cm3/1000 strokes	• +- 10	+ guide sleeve + travel mm : 11.50
CHOT TOOU SET ONES	. , , , , , , , , , , , , , , , , , , ,	+ Tolerance mm : +- 0.50
Check tolerance		+
cm3/1000s.	: +- 4.0	
Spreed		+ GUIDE SLEEVE POSITION
cm3/1000 strokes	: 7.0	Rated speed rpm : 600
		+
Check tolerance	40.0	Rack travel in mm: 20.00
cm3/1000S.	: 10.0	Tolerance mm : +- 0.80
Rated speed rpm	: 300	
, ,		FULL LOAD DELIVERY AT FULL LOAD STOP
Dook Americal de ma		Poted aread are 1150
Rack travel in mm Tolerance mm	n: 5.80 :+- 0.10	+ Rated speed rpm : 1150 + Aneroid pressure
Del. quantity	. 1 . 0.10	+ hPa : -
cm3/1000 strokes	: 18.0	Del. quantity
cm3/1000 strokes		- cm3/1000 strokes : 208.0
Check tolerance		cm3/1000 strokes : + 1.0
cm3/1000s.	: ← 6.0	Check tolerance
Spreed	5.0	+ cm3/1000s. : +- 4.0
cm3/1000 strokes		Spreed
Check tolerance		cm3/1000 strokes : 7.0
cm3/1000s.	: 8.0	- Check tolerance
	•	- cm3/1000s. : 10.0
	·	CONTROL LEVER
GUIDE SLEEVE TRAV	EL -	control lever
Section and the	700	position degree : 34.0
Rated speed rpm	: 500 -	tolerance degree : + 4.0
guide sleeve	2.70	†
travel mm	: 2.39	control lever
Tolerance mm	: ← 0.10	position degree : 95.0
Bakad autad au	. 1207	tolerance degree : + 4.0
Rated speed rpm	: 1207	DATES COFFES
guide sleeve	7.	RATED SPEED
travel mm	: 6.36	12.60
Tolerance mm	: +- 0.10	rack travel mm : 12.60
~	-	Rated speed rpm : 1202
Rated speed rpm	: 650	Tolerance 1/min : +- 8
guide sleeve		t
travel mm	: 6.00	rack travel mm : 4.00
Tolerance mm	: +- 0.10	Rated speed rpm : 1280
	-	Tolerance 1/min : + 15
Rated speed rpm	: 382 -	
guide sleeve	-	rack travel mm : 0.50
travel mm	: 5.26	Tolerance mm : +- 0.50
Tolerance mm	: +- 0.10	Rated speed rpm : 1350
Datad anada	: 450 -	Ī
Rated speed rpm	: 450 -	
guide sleeve	. 4.00	LOUTRE
travel mm	: 6.00 -	LOW IDLE
Tolerance mm	: +- 0.10	<u> </u>
Rated speed rpm	. 1770	
MATER CHEER HATER	: 1370 -	╆

control lever position degree tolerance degree	: 75.0 : + 4.0	rack travel mm : 10.00 Tolerance mm : +- 0.05
control lever position degree tolerance degree	: 14.0	START CUT-OUT Rated speed rpm : > 205 Rated speed rpm : < 240
Testing: Rated speed rpm	• 300	Check speed 1/min : > 185
rack travel mm Tolerance mm	: 5.80 : + 0.10	FUEL DELIVERY CHARACTERISTICS
rack travel mm Rated speed rpm Tolerance 1/min	: 2.00 : 375 : + 20	Aneroid pressure hPa : - Rated speed rpm : 650
Rated speed rpm CRT mm min.	: 200 : > 9.20	+ Del. quantity + cm3/1000 strokes : 226.0 + cm3/1000 strokes : + 3.0 + Check tolerance
TORQUE CONTROL		+ cm3/1000s. : ← 6.0
Rated speed rpm rack travel mm Tolerance mm	: 1150 : 13.60 : + 0.05	hPa : - Rated speed rpm : 500 Del. quantity cm3/1000 strokes : 137.0 cm3/1000 strokes : +- 1.0
Rated speed rpm rack travel mm Tolerance mm	: 650 : 13.60 : + 0.05	Check tolerance cm3/1000s. : +- 4.0
ANEROID/ALTITUDE COMPENSATOR TEST		BREAKAWAY Rack travel in mm : 12.60
SETTING		Rated speed rpm : 1202 Tolerance 1/min : +- 8
Rated speed rpm Pressure hPa rack travel mm Tolerance mm	: 500 : 1500 : 13.60 : + 0.05	STARTING FUEL DELIVERY Del. quantity
MEASUREMENT		+ cm3/1000 strokes : 203.0 + cm3/1000 strokes : +- 10.0
Pressure hPa Rated speed rpm rack travel mm Tolerance mm	: - : 500 : 9.00 : + 0.20	Check tolerance cm3/1000s. : + 14.0
Rated speed rpm	: 500	LOW IDLE
Pressure hPa rack travel mm Tolerance mm	: 650 : 12.30 : + 0.20	Rated speed rpm : 300 Del. quantity cm3/1000 strokes : 18.0
Pressure hPa	: 250	cm3/1000 strokes : +- 3.0

B24

Check tolerance cm3/1000s. : +- 6.0 Spreed cm3/1000 strokes : 5.0 Check tolerance cm3/1000s. : 8.0

Note remarks

Refer to Service Info for test and adjustment instructions.

See microcard(s) W400/...

: 14,10,96 Edition Test oil : ISO 4113

Combination No. : 0 402 676 825

Injection pump

Pump designation : PE6P120A320RS7430 EP type number : 0 412 626 960

Governor

Governer design. : RSV300...850P1A614

Governer no. : 0 421 833 502

Cust. part No. : 11031231 PO4 v.08/96

Customer-spec. information

Customer : VCE

: TD 103 KAE Motor

Power KW : 190.0

TEST BENCH REQUIREMENTS

Inlet line : 3.1

Vibration damper

(RoBo diaphragm): 4.2

Test oil inlet

temp. °C Tolerance °C : +- 2.0

Overflow valve : 2 417 413 078

Inlet press. bar : 2.5 Tolerance bar : + 0.1

Test nozzle holde

: 1 688 901 103 assembly

Opening pressure

bar : 208.5 Tolerance bar : + 1.5 Test lines : 1 680 750 008

Outside diameter : 6.0

x inside diameter :

x length mm : 600

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values ____

BEGINNING OF DELIVERY

26.0 Test pressure bar : Tolerance bar : +- 1.0

: 4.25 Prestroke mm : +- 0.05 Tolerance mm

Check

tolerance mm : **←** 0.10

Rack travel in mm : 11.00 : **←** 0.50 Tolerance mm

: 1-5-3-6-2-Firing order

: 4

Phasing : 0-60-120-180-240

: -300

: +- 0.30 Tolerance

Check

tolerance *NW : +- 0.50

Start of delivery mark

Barrel no. : 1

BASIC SETTING

Rated speed rpm : 500

Rack travel in mm : 12.20 : +- 0.05 Tolerance mm

Del. quantity

cm3/1000 strokes: 306.0

	•
cm3/1000 strokes : +- 1.0	
	CONTROL LEVER
Check tolerance	†
cm3/1000s. : +- 4.0	control lever
Conned	position degree : 83.0
Spreed - cm3/1000 strokes : 7.0 -	- tolerance degree : +- 4.0
CIID/ 1000 Strokes . /.u	control lever
Check tolerance	position degree : 106.0
cm3/1000s. : 11.0	tolerance degree : +- 4.0
-	-
Rated speed rpm : 325	- RATED SPEED
-	
	rack travel mm : 10.60
Rack travel in mm: 4.20	Rated speed rpm : 875
Tolerance mm : + 0.10	Tolerance 1/min : +- 5
Del. quantity	nock though the A CO
cm3/1000 strokes : 34.0 - cm3/1000 strokes : +- 3.0 -	- rack travel mm : 4.00 - Rated speed rpm : 950
Check tolerance	- Tolerance 1/min : + 15
cm3/1000s. : +- 6.0	- Total dilac 17 milli
Spreed	rack travel mm : 0.85
cm3/1000 strokes : 5.0 -	- Tolerance mm : +- 0.55
Check tolerance	- Rated speed rpm : 1100
cm3/1 000 S. : 8.0 -	
•	
(D) OFTITUE OF THISPOTYON DIME	LOU TOLE
(B) SETTING OF INJECTION PUMP WITH GOVERNOR	LOW IDLE
WITH GOVERNOR	
	- control lever
	position degree : 56.0
GUIDE SLEEVE POSITION	tolerance degree : + 4.0
+	
Rated speed rpm : 800	- control lever
· · · · · · · · · · · · · · · · · · ·	- position degree : 33.0
Rack travel in mm: 0.50	tolerance degree : +- 4.0
Tolerance mm : + 0.20	cotting maint when themselves
governor spring	Setting point w/out bumper spring
governor spring pre-tension	- - Rated speed rpm : 325
click setting x : 6.00	- rack travel mm : 3.80
Telek setting x	-
	- Testing:
FULL LOAD DELIVERY AT FULL LOAD STOP	-
	- Rated speed rpm : 325
Rated speed rpm : 500	rack travel mm : 4.20
Aneroid pressure	- Tolerance mm : +- 0.10
hPa : 1500	- - rack travel mm : 2.00
Del. quantity	
cm3/1000 strokes : 306.0 + cm3/1000 strokes : +- 1.0 +	- Rated speed rpm : 425 - Tolerance 1/min : +- 30
Check tolerance	· · ·
cm3/1000s. : +- 4.0	
Spreed	- TORQUE CONTROL
cm3/1000 strokes : 7.0	•
Check tolerance	- Rated speed rpm : 500
cm3/1000s. : 11.0	rack travel mm : 12.20
•	Tolonous
†	- Tolerance mm : +- 0.05

Rated speed rpm : 700 rack travel mm : 11.60 Tolerance mm : $\leftarrow 0.10$

Rated speed rpm : 570
rack travel mm : 11.90
Tolerance mm : + 0.10

ANEROID/ALTITUDE COMPENSATOR TEST

SETTING

Rated speed rpm : 500
Pressure hPa : 1500
rack travel mm : 12.20
Tolerance mm : +- 0.05

MEASUREMENT

Pressure hPa : Rated speed rpm : 500
rack travel mm : 8.70
Tolerance mm : +- 0.10

Rated speed rpm : 500

Pressure hPa : 680 rack travel mm : 3.40 Tolerance mm : + 0.20

Pressure hPa : 180 rack travel mm : 0.25 Tolerance mm : +- 0.05

FUEL DELIVERY CHARACTERISTICS

Aneroid pressure

hPa : 1500 Rated speed rpm : 700

Del. quantity

cm3/1000 strokes : 258.0 cm3/1000 strokes : \leftarrow 1.0

Check tolerance

cm3/1000s. : +- 4.0

Spreed

cm3/1000 strokes : 10.0

Check tolerance

cm3/1000s. : 14.0

Aneroid pressure

hPa : -Rated speed rpm : 700 Del. quantity

cm3/1000 strokes : 198.0cm3/1000 strokes : + 1.0

Check tolerance

cm3/1000s. : +- 4.0

BREAKAWAY

Rack travel in mm : 10.60
Rated speed rpm : 875
Tolerance 1/min : +- 5

LOW IDLE

325 Rated speed rpm : Del. quantity cm3/1000 strokes : cm3/1000 strokes : +-3.0 Check tolerance : +-_m3/1000s. 6.0 Spreed cm3/1000 strokes : 5.0 Check tolerance cm3/1000s. 8.0

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

Edition : 16.10.96 Test oil : ISO 4113

Combination No. : 0 402 698 033F1

Injection pump

Pump designation : PE8H12O/32OLS3-2

EP type number

Governor

Governer design. : RE36 (FD 57102 - FD

: 57108)

Governer no.

Cust. part No. : 0250745602

Customer-spec. information Customer : MB-NFZ Motor : OM 442 LA

TEST BENCH REQUIREMENTS

Inlet line : 3.2 ELAB

Test oil inlet

temp. $^{\circ}$ C : 40 Tolerance $^{\circ}$ C : \leftarrow 2.0

Overflow valve : 2 417 413 082

Inlet press. bar : 3.5
Tolerance bar : + 0.1

Test nozzle holde

assembly : 1 688 901 105

Opening pressure

bar : 208.5 Tolerance bar : + 1.5

Test Lines : 1 680 750 089

Outside diameter : 8.0

x inside diameter: 3.0 x length mm : 600

REMARKS

Pump-specific values in Section (B) must be observed!

(A) INJECTION PUMP SETTINGS No basic setting. Setting of constant delivery under Section C.

BEGINNING OF DELIVERY

Test pressure bar : 26.0 Tolerance bar : + 1.0

Prestroke mm : 7.00
Tolerance mm : +- 0.05
Check

tolerance mm : + 0.10

Rack travel in mm : 10.50Tolerance mm : + 0.50

Firing order : 8-7-2-6-3 :-5-4-1

Phasing : 0-45-90-135-180 : -225-270-315

Tolerance : + 0.50

Check

tolerance °NW : + 0.75

Start of delivery mark

Tolerance : \leftarrow 0.50

Check

tolerance *NW : +- 0.75

Barrel no. : 8

(B) POSITIONER TESTING Warm-up time: 3 minutes at n=600 min-1, Uact = 2.5 V

TESTING & SETTING RACK TRAVEL SENSOR POSITION

Engine speed min-1: 0

Setting point (P, R and H pump)

Uact V 3.100 13.00 CRT mm Tolerance mm : +/- 0.05

Check

tolerance mm : +/- 0.10

Check value (P, R and H pump)

1.700 Uact V CRT mm 6.15 Tolerance mm : +/- 0.25 Check

: +/- 0.30 tolerance mm

Setting point (amua M)

Uact V 3.100 12.50 CRT mm Tolerance mm : +/- 0.05 Check

: +/- 0.10 tolerance mm

Check value (M pump)

1.700 Uact V CRT mm 5.50 Tolerance mm : +/- 0.25 Check

tolerance mm

Stop position

: Value with Uact V

deenergised adjusting magnet and control rod in

: +/- 0.30

stop position.

0.75 CRT mm Tolerance mm : +/- 0.25 Check

: +/- 0.35tolerance mm

ENGINE-SPEED SENSOR (All P and R pumps not H and M pumps)

Test with control rod in stop position

Engine speed min-1: 60 Amplitude V 1.4 Tolerance V : +/- 0.6

Check

: +/- 1.20 tolerance V

Engine speed min-1: 600

Difference Amplitude to

Amplitude V : max.1.4

(C) INJECTION PUMP WITH POSITIONER

TEST POINT V1

Rated speed rpm : 750 Uact V 2.800 Prestroke solenoid 7,40 Stroke mm Del. quantity cm3/1000 strokes : 347.0 cm3/1000 strokes : +-1.0 Check tolerance cm3/1000s. 4.0 Spreed cm3/1000 strokes : 5.0 Check tolerance cm3/1000s. 9.0

FUEL DELIVERY CHARACTERISTICS

Rated speed rpm 950 Uact V 2,900 Prestroke solenoid Stroke mm 8.00 Del. quantity cm3/1000 strokes : 334.0 550 Rated speed rpm 2.700 Uact V Prestroke solenoid 9.50 Stroke mm Del. quantity cm3/1000 strokes : 354.0

TEST POINT L1

300 Rated speed rpm 1.500 Uact V Tolerance Volt : + 0.060Check tolerance : + - 0.060Prestroke solenoid Stroke mm 8.00 Del. quantity cm3/1000 strokes : 37.0 cm3/1000 strokes : +-3.0 Spreed cm3/1000 strokes : 6.0 Check tolerance cm3/1000s. 9.0

STARTING FUEL DELIVERY

100 Rated speed rpm Uact V 1.900

Prestroke solenoid

10.00 Stroke mm

Del. quantity

cm3/1000 strokes : 114.0 cm3/1000 strokes : +- 10.0

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

Edition : 16.10.96 : ISO 4113 Test oil

Combination No. : 0 402 698 033F2

Injection pump

Pump designation : PE8H120/320LS3-2

EP type number

Governor

Governer design. : RE36 (FD 57109 - FD

: 66213)

Governer no.

Cust. part No. : 0250745602

Customer-spec. information Customer : ME-NFZ : OM 442 LA Motor

TEST BENCH REQUIREMENTS

Inlet line : 3.2 ELAB

Test oil inlet

temp. °C Tolerance °C 2.0

Overflow valve : 2 417 413 082

3.5 Inlet press. bar : Tolerance bar : + 0.1

Test nozzle holde

: 1 688 901 105 assembly

Opening pressure

208.5 bar Tolerance bar : +- 1.5

Test Lines : 1 680 750 089

Outside diameter : 8.0

x inside diameter : 3.0 x length mm : 600

REMARKS

Pump-specific values in Section (B) must be observed!

(A) INJECTION PUMP SETTINGS No basic setting. Setting of constant delivery under Section C.

BEGINNING OF DELIVERY

Test pressure bar : 26.0 Tolerance bar : + 1.0

Prestroke mm : +-7.00 : +- 0.05 Check

: ← 0.10 tolerance mm

Rack travel in mm : 10.50 Tolerance mm : **←** 0.50

Firing order : 8-7-2-6-3 : - 5- 4- 1

: 0-45-90-135-180 Phasing

: -225-270-315 : +- 0.50

Tolerance Check

tolerance 'NW : +- 0.75

Start of delivery mark

: + 0.50 Tolerance

Check

tolerance *NW : +- 0.75

8 Barrel no. :

(B) POSITIONER TESTING Warm-up time: 3 minutes at n=600 min-1, Uact = 2.5 V

TESTING & SETTING RACK TRAVEL SENSOR **POSITION**

Engine speed min-1:

Setting point (P, R and H pump)

3.100 Uact V 13.00 CRT mm : +/- 0.05 Tolerance mm

Check

: +/- 0.10 tolerance mm

Check value (P, R and H pump)

1.700 Uact V : 6.15 CRT mm Tolerance mm : +/- 0.25 Check : +/- 0.30 tolerance mm

Setting point (qmuq M)

3.100 Uact V CRT mm 12.50 Tolerance mm : +/- 0.05 Check

tolerance mm : +/- 0.10

Check value (M pump)

Uact V 1.700 5.50 CRT mm : +/- 0.25 Tolerance mm Check : +/- 0.30 tolerance mm

Stop position

: Value with Uact V

deenergised adjusting magnet and control rod in

stop position.

0.75 CRT mm : +/- 0.25 Tolerance mm

Check

: +/- 0.35 tolerance mm

ENGINE-SPEED SENSOR (All P and R pumps not H and M pumps)

Test with control rod in stop position

Engine speed min-1: 60 Amplitude V 1.4 : +/- 0.6 Tolerance V Check

: +/- 1.20 tolerance V

Engine speed min-1: 600

Difference Amplitude to

: max.1.4 Amplitude V

(C) INJECTION PUMP WITH POSITIONER

TEST POINT V1

750 Rated speed rpm : Uact V 2.800 Prestroke solenoid Stroke mm 7.40 Del. quantity cm3/1000 strokes : 350.0 cm3/1000 strokes : +-Check tolerance cm3/1000s. 4.0 Spreed cm3/1000 strokes : 5.0 Check tolerance cm3/1000s.9.0

FUEL DELIVERY CHARACTERISTICS

950 Rated speed rpm Uact V 2.900 Prestroke solenoid Stroke mm 8.00 Del. quantity cm3/1000 strokes : 336.0 550 Rated speed rpm Uact V 2.700 Prestroke solenoid Stroke mm 9.50

Del. quantity cm3/1000 strokes : 357.0

TEST POINT L1

Rated speed rpm 300 Uact V 1.500 : + 0.060 Tolerance Volt Check tolerance : +- 0.060 Volt

Prestroke solenoid

Stroke mm 8.00 Del. quantity cm3/1000 strokes : 40.0 cm3/1000 strokes : +-

3.0 Spreed

cm3/1000 strokes : 6.0

Check tolerance

cm3/1000s. 9.0

STARTING FUEL DELIVERY

Rated speed rpm : 100 Uact V 1.900

Prestroke solenoid

10.00 Stroke mm

Del. quantity cm3/1000 strokes : 117.0 cm3/1000 strokes : +- 10.0

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

Edition : 16.10.96 Test oil : ISO 4113

Combination No. : 0 402 698 033F3

Injection pump

Pump designation : PE8H120/320LS3-2

EP type number

Governor

Governer design. : RE36 (FD 66214 - FD

: 66231)

Governer no.

Cust. part No. : 0250745602

Customer-spec. information : MB-NFZ Customer : OM 442 LA Motor

TEST BENCH REQUIREMENTS

Inlet line : 3.2 ELAB

Test oil inlet

temp. °C Tolerance °C : +- 2.0

Overflow valve : 2 417 413 082

Inlet press. bar : 3.5 Tolerance bar

Test nozzle holde

: 1 688 901 105 assembly

Opening pressure

208.5 bar Tolerance bar

: 1 680 750 089 Test lines

Outside diameter : 8.0 x inside diameter : 3.0 600 x length mm :

REMARKS

Pump-specific values in Section (B) must be observed!

(A) INJECTION PUMP SETTINGS No basic setting. Setting of constant delivery under Section C.

BEGINNING OF DELIVERY

tolerance mm

Test pressure bar : Tolerance bar : + 1.0

7.00 Prestroke mm : + 0.05Tolerance mm Check : + 0.10

Rack travel in mm: 10.50 Tolerance mm : +- 0.50

: 8-7-2-6-3 :-5-4-1 Firing order

Phasing : 0-45-90-135-180 : -225-270-315

Tolerance : +- 0.50

Check

tolerance *NW : + 0.75

Start of delivery mark

Tolerance : +- 0.50

Check

tolerance *NW : +- 0.75

Barrel no. : 8

(B) POSITIONER TESTING Warm-up time: 3 minutes at n=600 min-1, Uact = 2.5 V

	Test with control rod
TESTING & SETTING RACK TRAVEL SENSOR POSITION	in stop position
1 00212011	Engine speed min-1: 60
Engine speed min-1: 0	+ Amplitude V : 1.4 + Tolerance V : +/- 0.6
	+ Tolerance V : +/- 0.6
Setting point (P, R and H pump)	+ Check + tolerance V : +/- 1.20
се, к епи п ринру	T coterance v . +/- 1.20
Uact V : 3.100	+ Engine speed min-1: 600
Uact V : 3.100 CRT mm : 13.00	+ Difference
Tolerance mm : +/- 0.05	+ Amplitude to
Check	+ Amplitude V : max.1.4
tolerance mm : +/- 0.10	†
Check value	
(P, R and H pump)	(C) INJECTION PUMP WITH POSITIONER
	TEST POINT V1
Uact V : 1.700 CRT mm : 6.15	+
CRT mm : 6.15	+ Rated speed rpm : 750
Tolerance mm : +/- 0.25	Uact V : 2.800
Check tolerance mm : +/- 0.30	+ Prestroke solenoid + Stroke mm : 7.40
coceratice than . The bisson	Del. quantity
	+ cm3/1000 strokes : 344.0
Setting point	+ cm3/1000 strokes : + 1.0
(M pump)	Check tolerance : +- 4.0
7.400	+ cm3/1000s. : +- 4.0
Uact V : 3.100 CRT mm : 12.50	+ Spreed + cm3/1000 strokes : 5.0
CRT mm : 12.50 Tolerance mm : +/- 0.05	+ Check tolerance
Check	+ cm3/1000s. : 9.0
tolerance mm : +/- 0.10	+
	+ FUEL DELIVERY CHARACTERISTICS
Check value	t Batad and and a OFO
(M pump)	+ Rated speed rpm : 950 + Uact V : 2.900
Uact V : 1.700	Prestroke solenoid
CRT mm : 5.50	+ Stroke mm : 8.00
Tolerance mm : +/- 0.25	+ Del. quantity
Check	+ cm3/1000 strokes : 331.0
tolerance mm : +/- 0.30	+ Rated speed rpm : 550
Stop position	+ Rated speed rpm : 550 + Uact V : 2.700
Stop positivii	Prestroke solenoid
Uact V : Value with	+ Stroke mm : 9.50
deenergised adjusting magnet	† Del. quantity
and control rod in	+ cm3/1000 strokes : 351.0
stop position.	TEST POINT 14
CRT mm : 0.75 Tolerance mm : +/- 0.25	TEST POINT L1
Tolerance mm : +/- 0.25 Check	Rated speed rpm : 300
tolerance mm : +/- 0.35	+ Uact V : 1.500
	+ Tolerance Volt : + 0.060
	+ Check tolerance
ENGINE-SPEED SENSOR	+ Volt : + 0.060
(ALL P and R pumps not	+ Prestroke solenoid
H and M pumps)	+ Stroke mm : 8.00

Del. quantity cm3/1000 strokes : 34.0 cm3/1000 strokes : +- 3.0 Spreed cm3/1000 strokes : 6.0 Check tolerance cm3/1000S. : 9.0

STARTING FUEL DELIVERY

Rated speed rpm : 100
Uact V : 1.900
Prestroke solenoid
Stroke mm : 10.00
Del. quantity
cm3/1000 strokes : 111.0
cm3/1000 strokes : + 10.0

Note remarks

Refer to Service Info for test and adjustment instructions.
See microcard(s) W400/...

Edition : 11.10.96 Test oil : ISO 4113

Combination No. : 0 402 796 037

Injection pump

Pump designation : PES6H110/320RS13 EP type number : 0 412 716 003

Governor

Governer design. : RE36

Governer no. : 0 421 890 363

Cust. part No. : 51.11103-7482

Customer-spec. information

Customer : MAN

Motor : DO826 LF13/LFL09

Power KW : 191.0

TEST BENCH REQUIREMENTS

Inlet line : 3(EHAB)

Test oil inlet

temp. °C : 40
Tolerance °C : + 2.0

Overflow valve : 2 417 413 073

Inlet press. bar : 3.0
Tolerance bar : + 0.1

Test nozzle holde

assembly : 1 688 901 103

Opening pressure

bar : 208.5 Tolerance bar : ← 1.5

Test lines : 1 680 750 008

Outside diameter : 6.0

C10

x inside diameter: 2.0 x length mm : 600

REMARKS

Pump-specific values in Section (B) must be observed!

(A) INJECTION PUMP SETTINGS No basic setting.

Setting of constant delivery

under Section C.

BEGINNING OF DELIVERY

Test pressure bar : 26.0 Tolerance bar : +- 1.0

Prestroke mm : 8.00
Tolerance mm : + 0.05
Check
tolerance mm : + 0.10

Rack travel in mm : 10.50

Tolerance mm : + 0.50

Firing order : 1-5-3-6-2-

: 4

Phasing : 0-60-120-180-240

: -300

Tolerance : + 0.50

Check

tolerance *NW : + 0.75

Start of delivery blocking

Tolerance : \leftarrow 0.10

Check

tolerance *NW : + 0.75

Barrel no. : 1

(B) POSITIONER TESTING Warm-up time: 3 minutes at n=600 min-1, Uact = 2.5 VTESTING & SETTING RACK TRAVEL SENSOR POSITION Engine speed min-1: 0 Setting point (P, R and H pump) 3.100 Uact V CRT mm 13.00 : +/- 0.05 Tolerance mm Check : +/- 0.10 tolerance mm Check value (P, R and H pump) 1.700 Uact V : CRT mm 6.15 : +/- 0.25 Tolerance mm Check : +/- 0.30tolerance mm Setting point (amua M) Uact V 3.100 12.50 CRT mm Tolerance mm : +/- 0.05 Check : +/- 0.10 tolerance mm Check value (qmuq M) 1.700 Uact V CRT mm 5.50 : +/- 0.25 Tolerance mm Check : +/- 0.30tolerance mm Stop position Uact V : Value with deenergised adjusting magnet and control rod in stop position. CRT mm 0.75 : +/- 0.25 Tolerance mm

: +/- 0.35

ENGINE-SPEED SENSOR (All P and R pumps not H and M pumps) Test with control rod in stop position Engine speed min-1: 60 Amplitude V 1.4 : +/- 0.6Tolerance V Check : +/- 1.20 tolerance V 600 Engine speed min-1: Difference Amplitude to Amplitude V : max.1.4 (C) INJECTION PUMP WITH POSITIONER TEST POINT V1 Rated speed rpm 850 Uact V 2.490 Prestroke solenoid Stroke mm 11.10 Del. quantity cm3/1000 strokes : 224.0 cm3/1000 strokes : +-1.0 Check tolerance cm3/1000s.4.0 Spreed cm3/1000 strokes : 5.0 Check tolerance cm3/1000s.9.0 FUEL DELIVERY CHARACTERISTICS 800 Rated speed rpm 1.580 Uact V Prestroke solenoid 7.70 Stroke mm Del. quantity cm3/1000 strokes : 95.0 Check tolerance cm3/1000s. : +-8.0 Spreed Check tolerance cm3/1000s. 7.0

1150

2.440

9.30

206.0

Rated speed rpm

Prestroke solenoid

cm3/1000 strokes :

Uact V

Stroke mm

Del. quantity

Check

tolerance and

cm3/1000 strokes Check tolerance	: +-	6.0		
cm3/1000s.	: +-	10.0		
Rated speed rpm		500		
Uact V Prestroke solenoid		2.220		
rrestroke solenok S troke mm		12.10		
Del. quantity	•			
cm3/1000 strokes		207.0		
cm3/1000 strokes Check tolerance	: +-	6.0		
cm3/1000s.	: +-	10.0		
	•	,		
Rated speed rpm		500		
Jact V Prestroke solenoid		1.750		
Stroke mm	· :	9.80		
Del. quantity				
cm3/1000 strokes		135.0		
cm3/1000 strokes Check tolerance	: +-	5.0		
cm3/1000s.	: +-	9.0		
TEST POINT L1				
Rated speed rpm		300		
Jact V		1.310		
Tolerance Volt	: +- (0.060		
Check tolerance				
/olt Prestroke solenoid	: +- (J. UOU		
Stroke mm		11.10		
Del. quantity				
cm3/1000 strokes		26.0		
cm3/1000 strokes Spreed	: +-	3.0		
cm3/1000 strokes	:	7.0		
Check tolerance				
cm3/1000s.	:	11.0		
STARTING FUEL DELI	VERY			-
Rated speed rpm	. 1	00		
Jact V	: 2	2.050		
restroke solenoid		F F5		
Stroke mm	:	5.50		
Pel. quantity m3/1000 strokes	: 1	30.0		
m3/1000 strokes	: +-	8.0		
Check tolerance		40.0		
m3/1000s.	: +-	12.0		_
ind of toot ansate	iontio	n sha	- +	
ind of test specif	TUBLIC	a i she	5 L	

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

Edition Test oil : 11.10.96 : ISO 4113

Combination No. : 0 402 796 039

Injection pump

Pump designation : PES6H110/320RS13-1 EP type number : 0 412 716 004

Governor

Governer design. : RE36

Governer no. : 0 421 890 363

Cust. part No. : 51.11103-7529

Customer-spec. information

Customer : MAN

: D0826 LF13/LFL09 Motor

Power KW : 191.0

TEST BENCH REQUIREMENTS

Inlet line : 3-unten

Test oil inlet

temp. °C Tolerance °C : +- 2.0

Overflow valve : 2 417 413 082

Inlet press. bar : Tolerance bar : +- 0.1

Test nozzle holde

: 1 688 901 103 assembly

Opening pressure

208.5 : +- 1.5 Tolerance bar

Test lines : 1 680 750 008

Outside diameter : 6.0

x inside diameter: 2.0 x Length mm : 600

REMARKS

Pump-specific values in Section (B) must be observed!

(A) INJECTION PUMP SETTINGS

No basic setting.

Setting of constant delivery

under Section C.

BEGINNING OF DELIVERY

26.0 Test pressure bar : Tolerance bar : + 1.0

Prestroke mm : 8.00 : +- 0.05 Tolerance mm

tolerance mm : +- 0.10

Rack travel in mm: 10.50 : +- 0.50 Tolerance mm

Firing order : 1-5-3-6-2-

Phasing : 0-60-120-180-240

: -300

Tolerance : +- 0.50

Check

tolerance "NW : +- 0.75

Start of delivery blocking

: + 0.10Tolerance

Check

tolerance °NW : ← 0.75

Barrel no. 1

(B) POSITIONER TESTING Warm-up time: 3 minutes at n=600 min-1, Uact = 2.5 V

TESTING & SETTING RACK TRAVEL SENSOR POSITION

Engine speed min-1: 0

Setting point (P, R and H pump)

Uact V 3.100 CRT mm 13.00 Tolerance mm : +/- 0.05

Check

tolerance mm : +/- 0.10

Check value (P, R and H pump)

1.700 Uact V 6.15 CRT mm Tolerance mm : +/- 0.25 Check tolerance mm : +/- 0.30

Setting point (qmuq M)

Uact V 3.100 12.50 CRT mm Tolerance mm : +/- 0.05 Check

: +/- 0.10 tolerance mm

Check value (amuq M)

1.700 Uact V 5.50 CRT mm : +/- 0.25 Tolerance mm Check

: +/- 0.30 tolerance mm

Stop position

: Value with Uact V

> deenergised adjusting magnet and control rod in

> > stop position.

CRT mm 0.75 : +/- 0.25 Tolerance mm

Check

: +/- 0.35 tolerance mm

ENGINE-SPEED SENSOR (All P and R pumps not H and M pumps)

Test with control rod in stop position

Engine speed min-1: Amplitude V 1.4 : +/- 0.6 Tolerance V Check : +/- 1.20 tolerance V

Engine speed min-1: 600

Difference

Amplitude to

Amplitude V : max.1.4

(C) INJECTION PUMP WITH POSITIONER

TEST POINT V1

850 Rated speed rpm 2,490 Uact V Prestroke solenoid 11.10 Stroke mm Del. quantity cm3/1000 strokes : 224.0 cm3/1000 strokes : +-1.0 Check tolerance cm3/1000s.: +-4.0 Spreed cm3/1000 strokes : 5.0 Check tolerance cm3/1000s.9.0

FUEL DELIVERY CHARACTERISTICS

800 Rated speed rpm 1.580 Uact V Prestroke solenoid 7.70 Stroke mm Del. quantity cm3/1000 strokes : 95.0 Check tolerance cm3/1000s. : +-8.0 Spreed

Check tolerance cm3/1000s.7.0

1150 Rated speed rpm Uact V 2.440 Prestroke solenoid Stroke mm 9.30

Del. quantity cm3/1000 strokes : 206.0

cm3/1000 strokes	; +	- 6.0		
Check tolerance		10.0		
cm3/1000s.	; +-	- 10.0		
Rated speed rpm	:	600		
Uact V	:	2.220		
Prestroke solenoid	ť			
Stroke mm	;	12.10		
Del. quantity				
cm3/1000 strokes	:	207.0		
cm3/1000 strokes	: +-	- 6.0		
Check tolerance		40.0		
cm3/1000S.	; +-	- 10.0		
Rated speed rpm		500		
Uact V	•	1.750		
Prestroke solenoid	į.	, 50		
Stroke mm	•	9.80		
Del. quantity				
cm3/1000 strokes	:	135.0		
cm3/1000 strokes	: +-	5.0		
Check tolerance				
cm3/1000s.	: +-	9.0		
TEST POINT L1				
Rated speed rpm	:	300		
Uact V	•	1.310		
Tolerance Volt	: +-	0.060		
Check tolerance				
Volt	: +-	0.080		
Prestroke solenoid	i			
Stroke mm	:	11.10		
Del. quantity		24.0		
cm3/1000 strokes cm3/1000 strokes	:	26.0		
Spreed	;	5.0		
cm3/1000 strokes	:	7.0		
Check tolerance	•			
cm3/1000s.	:	11.0		
OTABTALO PUEL DEL T	· · · · · · · · · · · · · · · · · · ·			_
STARTING FUEL DELI	.VEKY			
Rated speed rpm	:	100		
Uact V Prestroke solenoid	;	2.050		
Stroke mm	•	5.50		
Del. quantity	•	<u>ال</u>		
cm3/1000 strokes	:	130.0		
cm3/1000 strokes	: +-	8.0		
Check tolerance				
cm3/1000s.	: +-	12.0		
				-
End of test specif	icat	ion she	et	

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

Edition Test oil

: 16,10,96 : ISO 4113

Combination No. : 0 402 846 073

Injection pump

Pump designation : PE6P110A320RS8042 EP type number : 0 412 816 013

Governor

Governer design. : RQV300...1200PA1043

: -1

Governer no.

: 0 421 814 150

Cust. part No. : 11032710

: -P01 v.08.96

Customer-spec. information : VCE Customer : TD73KFE Motor

: 171.0 Power KW

TEST BENCH REQUIREMENTS

Inlet line : 3.1

Test oil inlet

temp. °C ; +-Tolerance °C 2.0

Overflow valve : 2 417 413 078

Inlet press. bar : : + 0.1 Tolerance bar

Test nozzle holde

: 1 688 901 101 assembly

Opening pressure

208.5 : +- 1.5 Tolerance bar

Test Lines : 1 680 750 008

Outside diameter : 6.0

x inside diameter : 2.0

x Length mm : 600

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values _____

BEGINNING OF DELIVERY

Test pressure bar : 26.0 Tolerance bar : + 1.0

Prestroke mm 3.85 : + 0.05Tolerance mm

Check

tolerance mm : +- 0.10

Rack travel in mm : 11.00

: **←** 0.50 Tolerance mm

Firing order : 1-5-3-6-2-

: 0-60-120-180-240 Phasing

: -300

Tolerance : +- 0.30

Check

tolerance *NW : +- 0.50

Start of delivery mark

Barrel no. : 1

BASIC SETTING

Rated speed rpm : 700

Rack travel in mm : 11.10 Tolerance mm : \leftarrow 0.05

Del. quantity

cm3/1000 strokes : 182.0

cm3/1000 strokes : +- 1.0

	+ Rated speed rpm : 1393
Check tolerance cm3/1000s. : +- 3.0	+ Rack travel in mm : 10.00 + Tolerance mm : +- 1.30
Spreed cm3/1000 strokes : 7.0	
Check tolerance cm3/1000s. : 11.0	FULL LOAD DELIVERY AT FULL LOAD STOP Rated speed rpm : 700
Rated speed rpm : 300	Aneroid pressure + hPa : 1500
Book through in mm / 50	+ Del. quantity + cm3/1000 strokes : 182.0 + cm3/1000 strokes : + 1.0
Rack travel in mm : 4.50 Tolerance mm : +- 0.10 Del. quantity	Check tolerance + cm3/1000s. : + 3.0
cm3/1000 strokes : 24.0 cm3/1000 strokes : + 2.0	Spreed cm3/1000 strokes : 7.0
Check tolerance cm3/1000s. : +- 5.0 Spreed	+ Check tolerance + cm3/1000S. : 11.0
cm3/1000 strokes : 5.0 Check tolerance	
cm3/1000s. : 8.0	CONTROL LEVER
(B) SETTING OF INJECTION PUMP WITH GOVERNOR	+ control lever + position degree : 47.0 + tolerance degree : + 4.0 +
GUIDE SLEEVE TRAVEL	control lever position degree : 113.0
Rated speed rpm : 300	tolerance degree : + 4.0
guide sleeve travel mm : 1.17	+ RATED SPEED
Tolerance mm : + 0.20	rack travel mm : 10.10 Rated speed rpm : 1245
Rated speed rpm : 1256 guide sleeve travel mm : 8.23	Tolerance 1/min : + 5 + rack travel mm : 4.00
Tolerance mm : + 0.15	Rated speed rpm : 1335 Tolerance 1/min : +- 15
Rated speed rpm : 857 guide sleeve	rack travel mm : 0.50
travel mm : 5.21 Tolerance mm : + 0.25	Tolerance mm : +- 0.50 Rated speed rpm : 1450
Rated speed rpm : 530 guide sleeve	
travel mm : 3.11 Tolerance mm : + 0.25	+ LOW IDLE
Rated speed rpm : 1550 guide sleeve	control lever position degree : 82.0
travel mm : 11.50 Tolerance mm : +- 0.50	tolerance degree : +- 4.0 control lever
GUIDE SLEEVE POSITION	position degree : 16.0 tolerance degree : +- 4.0

Testing:

Rated speed rpm : 300 rack travel mm : 4.50 Tolerance mm : + 0.10

Rated speed rpm : 200

CRT mm min. : > 8.53

Rated speed rpm : 340

TORQUE CONTROL

Rated speed rpm : 700 rack travel mm : 11.10 Tolerance mm : + 0.05

ANEROID/ALTITUDE COMPENSATOR TEST

SETTING

Rated speed rpm : 500
Pressure hPa : 1500
rack travel mm : 11.10
Tolerance mm : + 0.05

MEASUREMENT

Pressure hPa : Rated speed rpm : 500
rack travel mm : 7.80
Tolerance mm : + 0.10

Rated speed rpm : 500

Pressure hPa : 730
rack travel mm : 2.90
Tolerance mm : + 0.20

Pressure hPa : 230 rack travel mm : 0.25 Tolerance mm : + 0.05

FUEL DELIVERY CHARACTERISTICS

Aneroid pressure

hPa : Rated speed rpm : 700
Del. quantity

cm3/1000 strokes : 114.0 cm3/1000 strokes : + 1.0

Check tolerance

cm3/1000s. : +- 4.0

BREAKAWAY

Rack travel in mm: 10.10
Rated speed rpm: 1245
Tolerance 1/min: +- 5

LOW IDLE

Rated speed rpm : 300 Del. quantity

cm3/1000 strokes : 24.0 cm3/1000 strokes : +- 2.0 Check tolerance

cm3/1000s. : + 5.0 Spreed cm3/1000 strokes : 5.0

Check tolerance cm3/1000s. : 8.0

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

Edition : 14.10.96 Test oil : ISO 4113

Combination No. : 0 402 846 075

Injection pump

Pump designation : PE6P110A320RS8042 EP type number : 0 412 816 013

Governor

Governer design. : RQV300...1050PA1183

: -1

Governer no. : 0 421 814 159

Cust. part No. : 11032711

: -P01 V.08/96

Customer-spec. information

Customer : VCE_

Motor : TD 73 KDE Power KW : 153.0

TEST BENCH REQUIREMENTS

Inlet line : 3.1

Test oil inlet

temp. °C : 40 Tolerance °C : + 2.0

Overflow valve : 2 417 413 078

Inlet press. bar : 2.5
Tolerance bar : + 0.1

Test nozzle holde

assembly : 1 688 901 101

Opening pressure

bar : 208.5 Tolerance bar : + 1.5

Test lines : 1 680 750 008

Outside diameter : 6.0

x inside diameter : 2.0
x length mm : 600

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values ____

BEGINNING OF DELIVERY

Test pressure bar : 26.0 Tolerance bar : + 1.0

Prestroke mm : 3.85
Tolerance mm : + 0.05

Check

tolerance mm : \leftarrow 0.10

Rack travel in mm : 11.00 Tolerance mm : + 0.50

Firing order : 1-5-3-6-2-

: 4

Phasing : 0-60-120-180-240

: -300

Tolerance : \leftarrow 0.30

Check

tolerance *NW : +- 0.50

Start of delivery mark

Barrel no. : 1

BASIC SETTING

Rated speed rpm : 700

Rack travel in mm : 10.90 Tolerance mm : + 0.05

Del. quantity

cm3/1000 strokes : 178.0

cm3/1000 strokes : +- 1.0

C19

+	Rated speed rpm : 1259
Check tolerance	Rack travel in mm : 9.80 Tolerance mm : + 1.30
Spreed + cm3/1000 strokes : 7.0 +	
Check tolerance	FULL LOAD DELIVERY AT FULL LOAD STOP
cm3/1000s. : 11.0	Rated speed rpm : 700 Aneroid pressure
Rated speed rpm : 300	hPa : 1500
	Del. quantity cm3/1000 strokes : 178.0
Rack travel in mm : 4.50 + Tolerance mm : + 0.30 +	cm3/1000 strokes : +- 1.0 Check tolerance
Del. quantity + cm3/1000 strokes : 24.0 +	cm3/1000s. : +- 3.0 Spreed
cm3/1000 strokes : +- 2.5 +- Check tolerance +-	cm3/1000 strokes : 7.0 Check tolerance
cm3/1000s. : + 5.0 + 5.0	cm3/1000s. : 11.0
cm3/1000 strokes : 5.0 + Check tolerance	
cm3/1000s. : 8.0	CONTROL LEVER
(B) SETTING OF INJECTION PUMP	control lever position degree : 45.0
WITH GOVERNOR	tolerance degree : +- 4.0
CHART OF TRAVE	control lever
GUIDE SLEEVE TRAVEL	position degree : 112.0 tolerance degree : +- 4.0
Rated speed rpm : 300 + guide sleeve +	RATED SPEED
travel mm : 1.17 + Tolerance mm : + 0.20 +	rack travel mm : 9.90
Rated speed rpm : 1107	Rated speed rpm : 1095 Tolerance 1/min : +- 5
guide sleeve + travel mm : 7.86 +	rack travel mm : 4.00
Tolerance mm : +- 0.15	Rated speed rpm : 1175 Tolerance 1/min : +- 15
Rated speed rpm : 804	rack travel mm : 0.50
travel mm : 5.19	Tolerance mm : +- 0.50 Rated speed rpm : 1300
+	rated speed rpm . 1300
Rated speed rpm : 530 guide sleeve	
travel mm : 3.11 Tolerance mm : + 0.25	LOW IDLE
Rated speed rpm : 1400 T	control lever position degree : 82.0
travel mm : 11.50 +	tolerance degree : + 4.0
Tolerance mm : + 0.50	control lever
GUIDE SLEEVE POSITION	position degree : 16.0 tolerance degree : +- 4.0

Testing:

Rated speed rpm : 300 rack travel mm : 4.50 Tolerance mm : + 0.30

Rated speed rpm : 200

CRT mm min. : > 7.50

Rated speed rpm : 340

TORQUE CONTROL

Rated speed rpm : 700 rack travel mm : 10.90 Tolerance mm : + 0.05

ANEROID/ALTITUDE COMPENSATOR TEST

SETTING

Rated speed rpm : 500
Pressure hPa : 1500
rack travel mm : 10.90
Tolerance mm : +- 0.05

MEASUREMENT

Pressure hPa : Rated speed rpm : 500
rack travel mm : 8.00
Tolerance mm : +- 0.10

Rated speed rpm : 500

Pressure hPa : 710 rack travel mm : 2.60 Tolerance mm : \leftarrow 0.20

Pressure hPa : 270 rack travel mm : 0.25 Tolerance mm : +-0.05

FUEL DELIVERY CHARACTERISTICS

Aneroid pressure

hPa : - 700

Del. quantity

cm3/1000 strokes : 117.0 cm3/1000 strokes : +- 1.0

Check tolerance		
cm3/1000s.	: +-	4.0

BREAKAWAY

Rack travel in mm : 9.90
Rated speed rpm : 1095
Tolerance 1/min : +- 5

LOW IDLE

Rated speed rpm : 300

Del. quantity

cm3/1000 strokes : 24.0

cm3/1000 strokes : + 2.5

Check tolerance

cm3/1000s. : + 5.0

Spreed

cm3/1000 strokes : 5.0

Check tolerance

cm3/1000s. : 8.0

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

: 15.10.96 Edition Test oil : ISO 4113

Combination No. : 0 402 846 081

Injection pump

Pump designation : PE6P120A320RS8044 EP type number : 0 412 826 036

Governor

Governer design. : RQV300...950PA1321

Governer no. : 0 421 814 186

Cust. part No. : 11127026

: -P02 V.08/96

Customer-spec. information Customer : VCE : TD122KLE Motor Power KW : 200.0

TEST BENCH REQUIREMENTS

Inlet line : 3.1

Test oil inlet

Tolerance °C : +- 2.0

Overflow valve : 2 417 413 078

2.5 Inlet press. bar : Tolerance bar : + 0.1

Test nozzle holde

: 1 688 901 103 assembly

Opening pressure

: 208.5 bar Tolerance bar : \leftarrow 1.5

Test Lines : 1 680 750 008

Outside diameter : 6.0

x inside diameter : 2.0 x length mm : 600

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values _____

BEGINNING OF DELIVERY

Test pressure bar : 26.0 Tolerance bar : \leftarrow 1.0

Prestroke mm : 4.00 Tolerance mm : +- 0.05 Check

tolerance mm : \leftarrow 0.10

Rack travel in mm : 11.00 Tolerance mm : \leftarrow 0.50

Firing order : 1-5-3-6-2-

Phasing : 0-60-120-180-240

: -300

: +- 0.30 Tolerance

Check

tolerance *NW : +- 0.50

Start of delivery mark

Barrel no. : 1

BASIC SETTING

Rated speed rpm : 700

Rack travel in mm : 10.90 Tolerance mm : \leftarrow 0.05

Del. quantity

cm3/1000 strokes : 279.0

cm3/1000 strokes : +- 1.0

	+	Rated speed rpm : 1120
Check tolerance cm3/1000s.	: + 4.0	Rack travel in mm : 9.80 Tolerance mm : +- 1.30
Spreed cm3/1000 strokes	: 8.0	FULL LOAD DELIVERY AT FULL LOAD STOP
Check tolerance cm3/1000s.	: 11.0	Rated speed rpm : 700
Rated speed rpm	: 300	Aneroid pressure hPa : 1500 Del. quantity
Rack travel in mm Tolerance mm Del. quantity cm3/1000 strokes	: + 0.10 : 23.0	cm3/1000 strokes : 279.0 cm3/1000 strokes : +- 1.0 Check tolerance cm3/1000S. : +- 4.0 Spreed
cm3/1000 strokes Check tolerance cm3/1000s.	: + 3.0	cm3/1000 strokes : 8.0 Check tolerance cm3/1000s. : 11.0
Spreed cm3/1000 strokes Check tolerance	: 5.0	
cm3/1000s.	: 8.0	CONTROL LEVER
(B) SETTING OF IN. WITH GOVERNOR	JECTION PUMP	control lever position degree : 50.0 tolerance degree : +- 4.0
GUIDE SLEEVE TRAVE	EL +	control lever position degree : 106.0
Rated speed rpm guide sleeve travel mm Tolerance mm	: 300 : 1.17 : + 0.20	tolerance degree : + 4.0 RATED SPEED rack travel mm : 9.90
Rated speed rpm guide sleeve	+	Rated speed rpm : 1015 Tolerance 1/min : +- 5
travel mm Tolerance mm	: 8.26 : + 0.15	rack travel mm : 4.00 Rated speed rpm : 1105 Tolerance 1/min : +- 15
Rated speed rpm guide sleeve travel mm Tolerance mm	: 854 : 6.04 : + 0.25	rack travel mm : 0.50 Tolerance mm : +- 0.50 Rated speed rpm : 1210
Rated speed rpm guide sleeve	: 580	
travel mm Tolerance mm	: 3.53 : + 0.25	LOW IDLE
Rated speed rpm guide sleeve travel mm Tolerance mm	: 1360 : 11.50 : + 0.50	<pre>control lever position degree : 72.0 tolerance degree : +- 4.0 control lever</pre>
GUIDE SLEEVE POSIT	TION	position degree : 16.0 tolerance degree : + 4.0

Testing:

Rated speed rpm : 300 rack travel mm : 4.20 Tolerance mm : +- 0.10

Rated speed rpm : 200

CRT mm min. :> 8.00

Rated speed rpm : 375

TORQUE CONTROL

Rated speed rpm : 700 rack travel mm : 10.90 Tolerance mm : + 0.05

ANEROID/ALTITUDE COMPENSATOR TEST

SETTING

Rated speed rpm : 550
Pressure hPa : 1500
rack travel mm : 10.90
Tolerance mm : + 0.10

MEASUREMENT

Pressure hPa : Rated speed rpm : 550
rack travel mm : 8.60
Tolerance mm : + 0.10

Rated speed rpm : 550

Pressure hPa : 640 rack travel mm : 2.00 Tolerance mm : + 0.10

Pressure hPa : 240 rack travel mm : 0.25 Tolerance mm : +- 0.05

FUEL DELIVERY CHARACTERISTICS

Aneroid pressure

hPa : -Rated speed rpm : 550

Del. quantity

cm3/1000 strokes : 208.0 cm3/1000 strokes : + 1.0

Check tolerance

cm3/1000s. : +- 4.0

BREAKAWAY

Rack travel in mm : 9.90
Rated speed rpm : 1015
Tolerance 1/min : + 5

STARTING FUEL DELIVERY

Rated speed rpm : 100 rack travel mm : 20.50 Tolerance mm : + 0.50 Del. quantity

cm3/1000 strokes : 155.0 cm3/1000 strokes : +- 15.0 Check tolerance

cm3/1000s. : +- 19.0

LOW IDLE

Rated speed rpm : 300

Del. quantity

cm3/1000 strokes : 23.0

cm3/1000 strokes : + 3.0

Check tolerance

cm3/1000s. : + 6.0

Spreed

cm3/1000 strokes : 5.0

Check tolerance

cm3/1000s. : 8.0

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

Edition Test oil

: 14.10.96 : ISO 4113

Combination No. : 0 402 946 024

Injection pump

Pump designation : PES6P120A720RS8045 EP type number : 0 412 926 028

Governor

Governer design. : RQ750PA1299

Governer no. : 0 421 801 810

Cust. part No. : 1388641

Customer-spec. information Customer : SCANIA

Motor

: DSC1158A

TEST BENCH REQUIREMENTS

Inlet line : EHAB

Test oil inlet

temp. °C

40

Tolerance °C : 40 : + 2.0

Overflow valve : 2 417 413 082

Inlet press. bar :

Tolerance bar : + 0.1

Overflow quantity

min. L/h

Tolerance l/h: +- 20.0

Test nozzle holde

: 1 688 901 104 assembly

Opening pressure

: 251.5 bar

Tolerance bar : + 1.5

Test lines : 1 680 750 008

Outside diameter : 6.0

x inside diameter : 2.0

x length mm : 600

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values _____

BEGINNING OF DELIVERY

Test pressure bar : 26.0 Tolerance bar : +- 1.0

Prestroke mm : + 3.65

: +- 0.05

Check

: + - 0.10tolerance mm

Rack travel in mm : 10.50 Tolerance mm : + 1.50

Tolerance mm

Firing order : 1-5-3-6-2-

: 0-60-120-180-240 Phasing

: -300

Tolerance : +~ 0.30

Check

tolerance *NW : +- 0.50

Start of delivery blocking

Tolerance : +- 0.10

Check

tolerance °NW : +- 0.75

Barrel no. : 1

BASIC SETTING

Rated speed rpm : 700

1	8.1
	Del. quantity
Rack travel in mm: 13.75	cm3/1000 strokes : 363.0 cm3/1000 strokes : +- 1.0
Tolerance mm : +- 0.05	Check tolerance
Toterance mil . += 0.05	
Del. quantity	cm3/1000S. : +- 10.0 Spreed
cm3/1000 strokes : 363.0	cm3/1000 strokes : 8.0
Time rough strokes . Sosta	Check tolerance
cm3/1000 strokes : +- 1.0	cm3/1000s. : 12.0
1.0	CM37 10000: 12.0
Check tolerance	
cm3/1000s. : +- 10.0 +-	
+	CONTROL LEVER
Spreed	
cm3/1000 strokes : 8.0	control lever
+	position degree : 28.0
Check tolerance +	tolerance degree : +- 4.0
cm3/1000s. : 12.0 +	
+	control lever
<u> </u>	position degree : 89.0
Rack travel in mm: 3.30 +	tolerance degree : +- 4.0
Tolerance mm : + 0.20 +	
Del. quantity +	40071111 14 001/501/00 05777110
cm3/1000 strokes : 30.0 +	ASSEMBLY GOVERNOR SETTING
cm3/1000 strokes : + 4.0 +	Datad aread mm . 750
Check tolerance + cm3/1000s. : ← 6.0 +	Rated speed rpm : 750 rack travel mm : 12.70
cm3/1000s. : + 6.0 + Spreed	rack travet mm : 12.70
cm3/1000 strokes : 5.0	Rated speed rpm : 778
Check tolerance	Tolerance 1/min : +- 4
cm3/1000s. : 9.0	rack travel mm : 4.00
	THE THE TENED OF T
1	rack travel mm : 0.50
(B) SETTING OF INJECTION PUMP	Tolerance mm : + 0.50
WITH GOVERNOR	Rated speed rpm : 850
+	,
	Rated speed rpm : 751
GUIDE SLEEVE TRAVEL	rack travel mm : 12.70
+	
Rated speed rpm : 759	Rated speed rpm : 779
guide sleeve +	Tolerance 1/min : +- 4
travel mm : 5.07	rack travel mm : 4.00
Tolerance mm : + 0.15 +	0.50
+	rack travel mm : 0.50
Rated speed rpm : 795	Tolerance mm : + 0.50
guide sleeve	Rated speed rpm : 850
travel mm : 10.00 +	Data dana dana - 752
Tolerance mm : + 0.25	Rated speed rpm : 752
Rated speed rpm : 850	rack travel mm : 12.70
Rated speed rpm : 850 + quide sleeve +	Rated speed rpm : 780
travel mm : 11.50	Tolerance 1/min : +- 4
Tolerance mm : + 0.50	rack travel mm : 4.00
Total differential . F- 0.50	TOON GROVE HAIR . T.UU
	rack travel mm : 0.50
FULL LOAD DELIVERY AT FULL LOAD STOP	Tolerance mm : +- 0.50
TOLL COMP DELIVERY AT TOLL COMP DIO	Rated speed rpm : 850
Rated speed rpm : 700	John Special Specia
Aneroid pressure	Rated speed rpm : 753
hPa : 1500	rack travel mm : 12.70
•	

C26

Rated speed rpm Tolerance 1/min rack travel mm	: +-	781 4 4,00
rack travel mm Tolerance mm Rated speed rpm	: +-	0.50 0.50 850
Rated speed rpm rack travel mm	:	754 12.70
Rated speed rpm Tolerance 1/min rack travel mm	: +-	782 4 4.00
rack travel mm Tolerance mm Rated speed rpm	+-	0.50 0.50 850
Rated speed rpm rack travel mm	: :	755 12.70
Rated speed rpm Tolerance 1/min rack travel mm	: +-	783 4 4.00
rack travel mm Tolerance mm Rated speed rpm	: : +-	0.50 0.50 850

TORQUE CONTROL

Rated speed rpm	:	700
rack travel mm	:	13.75
Tolerance mm	: +	- 0.05

ANEROID/ALTITUDE COMPENSATOR TEST

SETTING

Rated speed rpm	:	500
Pressure hPa	:	1500
rack travel mm	:	13.75
Tolerance mm	: -	← 0.05

MEASUREMENT

Pressure hPa Rated speed rpm rack travel mm Tolerance mm	:	- 500 8.50 - 0.20
Tolerance mm	: +	- 0.20

Rated speed rpm : 500

Pressure hPa	: 320
rack travel mm	: 9.80
Tolerance mm	: +- 0.25
Pressure hPa	: 820
rack travel mm	: 12.40
Tolerance mm	: + 0.05

FUEL DELIVERY CHARACTERISTICS

Aneroid pressure			
hPa	:		-
Rated speed rpm	:		500
Del. quantity			
cm3/1000 strokes	:		218.0
cm3/1000 strokes	:	+-	1.0
Check tolerance			
cm3/1000s.	:	+-	6.0

STARTING FUEL DELIVERY

Rated speed rpm	: 100
rack travel mm	: 8.50
Tolerance mm	: ← 0.20
Del. quantity	
cm3/1000 strokes	: 155.0
cm3/1000 strokes	: +- 20.0
Check tolerance	
cm3/1000S.	: +- 24.0

Note remarks

Refer to Service Info for test and adjustment instructions.
See microcard(s) W400/...

Edition : 17.10.96 Test oil : ISO 4113

Combination No. : 9 400 083 430

Injection pump

Pump designation : PES6A80D32C/3RS1261

EP type number : 9 400 083 057

Governor

Governer design. : RSV350...1200A2C627R

Governer no. : 9 420 083 288

Cust. part No. :

Customer-spec. information Customer : MWM

Motor : D225-6

TEST BENCH REQUIREMENTS

Inlet line : 3.1

Test oil inlet

temp. °C : 40
Tolerance °C : + 2.0

Overflow valve : 1 419 992 198

Inlet press. bar : 1.5

Test nozzle holde

assembly : 0 681 343 009

Opening pressure

bar : 173.5 Tolerance bar : + 1.5

Test Lines : 1 680 750 003

Outside diameter : 6.0

x inside diameter: 2.0

x length mm : 600

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values _____

BEGINNING OF DELIVERY

Test pressure bar : 26.0 Tolerance bar : + 1.0

Prestroke mm : 2.25
Tolerance mm : + 0.05

Check

tolerance mm : + 0.10

Rack travel in mm : 10.50 Tolerance mm : + 1.50

Firing order : 1-5-3-6-2-

: 4

Phasing : 0-60-120-180-240

: -300

Beginning of delivery differende

and maximum rack

travel : 10.50
Tolerance mm : + 1.50
Difference * CS : 4.50

BASIC SETTING

Rated speed rpm : 1200

Rack travel in mm : 9.45
Tolerance mm : + 0.05

Del. quantity

cm3/1000 strokes : 51.0

cm3/1000 strokes : + 0.5

Check tolerance

cm3/1000s. : +- 2.0

Spreed

cm3/1000 strokes : 2.5 rack travel mm : 0.85
Tolerance mm : + 0.55 Check tolerance 4.0 Rated speed rpm : 1400 cm3/1000s. 350 Rated speed rpm : LOW IDLE 6.00 Rack travel in mm: : +- 0.10 Tolerance mm control lever position degree : 20.0 (B) SETTING OF INJECTION PUMP tolerance degree : + 4.0 WITH GOVERNOR Setting point w/out bumper spring Rated speed rpm : GUIDE SLEEVE POSITION rack travel mm : 5.50 Rated speed rpm : 800 Testing: Rack travel in mm: 0.65 Rated speed rpm 350 6.00 rack travel mm : + 0.10governor spring Tolerance mm pre-tension click setting x: 4.30 2.00 rack travel mm : Rated speed rpm : +-Tolerance 1/min FULL LOAD DELIVERY AT FULL LOAD STOP Rated speed rpm : 100 Rated speed rpm : 1200 Aneroid pressure CRT mm min. : > 19.00hPa Del. quantity cm3/1000 strokes : 51.0 TORQUE CONTROL cm3/1000 strokes : + 0.5 Rated speed rpm : 1200 Check tolerance rack travel mm : 9.45 2.0 cm3/1000s. : +- 0.05 Tolerance mm Spreed cm3/1000 strokes : 2.5 : 500 Rated speed rpm Check tolerance 4.0 9.50 cm3/1000s. rack travel mm : + 0.10Tolerance mm Rated speed rpm : 400 : 10.90 CONTROL LEVER rack travel mm : +- 0.30 Tolerance mm control lever position degree : 50.0 tolerance degree : + 4.0 RATED SPEED 8.40 BREAKAWAY rack travel mm : Rated speed rpm : 1245 Tolerance 1/min : +-Rack travel in mm: 8.40 4.00 Rated speed rpm : 1245 rack travel mm : Rated speed rpm : 1300 Tolerance 1/min : +-Tolerance 1/min : + 15

STARTING FUEL DELIVERY

Rated speed rpm : 100 rack travel mm : 20.00 Tolerance mm : + 1.00

LOW IDLE

Rated speed rpm : 350

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

: 21.10.96 Edition Test oil : ISO 4113

Combination No. : 9 400 085 293

Injection pump

Pump designation : PES6A80D410RS2755 EP type number : 9 400 093 005

Governor

Governer design. : RQV300...1400AB1234L

Governer no. : 9 420 080 241

Cust. part No. :

Customer-spec. information

Customer : DEUTZ-ARGENTINA

: F 6 L 913 Motor

TEST BENCH REQUIREMENTS

Inlet line : 4.2

Test oil inlet

temp. °C 40 Tolerance °C : + 2.0

Overflow valve : 1 419 992 198

Inlet press. bar : 1.5

Test nozzle holde

: 0 681 343 009 assembly

Opening pressure

: 173.5 Tolerance bar : +- 1.5

Test Lines : 1 680 750 014

Outside diameter : 6.0

x inside diameter: 2.0

x length mm : 600

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values _____

BEGINNING OF DELIVERY

Test pressure bar : 26.0 Tolerance bar : + 1.0

1.95 Prestroke mm : +- 0.05 Tolerance mm

Check

tolerance mm : + 0.10

Rack travel in mm: 10.50 Tolerance mm : + 1.50

Firing order : 1-5-3-6-2-

: 4

Phasing : 0-60-120-180-240

: -300

BASIC SETTING

Rated speed rpm : 1400

Rack travel in mm: 12.05 Tolerance mm : \leftarrow 0.05

Del. quantity

cm3/1000 strokes : 69.5

cm3/1000 strokes : +- 0.5

Check tolerance

: +- 2.0 cm3/1000s.

Spreed

cm3/1000 strokes : 2.5

Check tolerance

: 4.0 cm3/1000s.

Rated speed rpm : 300

003

Rack travel in mm Tolerance mm Del. quantity cm3/1000 strokes cm3/1000 strokes Check tolerance cm3/1000s. Spreed cm3/1000 strokes Check tolerance cm3/1000s.	: + 0.10 : 10.0 : + 1.5 : + 3.5	Del. quantity cm3/1000 strokes cm3/1000 strokes Check tolerance cm3/1000s. Spreed cm3/1000 strokes Check tolerance cm3/1000s.	: + 0.5 : + 2.0 : 2.5
(B) SETTING OF IN	·	control lever position degree	
		tolerance degree	: +- 4.0
GUIDE SLEEVE TRAV	EL	RATED SPEED	
Rated speed rpm guide sleeve travel mm Tolerance mm	: 1460 : 8.50 : +- 0.10	rack travel mm Rated speed rpm Tolerance 1/min	: 1445
Rated speed rpm guide sleeve	: 775	rack travel mm Rated speed rpm Tolerance 1/min	
travel mm Tolerance mm Rated speed rpm	: 4.35 : + 0.25 : 300	rack travel mm Tolerance mm Rated speed rpm	: 0.50 : + 0.50 : 1700
guide sleeve travel mm Tolerance mm	: 0.95 : + 0.25		
Rated speed rpm		LOW IDLE	
guide sleeve travel mm Tolerance mm	: 2.85 : + 0.15	control lever position degree tolerance degree	
Rated speed rpm guide sleeve travel mm	: 950 : 5.35	Testing:	
Tolerance na	: +- 0.15	Rated speed rpm rack travel mm Tolerance mm	: 300 : 6.00 : ← 0.10
GUIDE SLEEVE POST		Rated speed rpm	: 100
Rated speed rpm		CRT mm min.	: > 7.50
Rack travel in mm Tolerance mm		Rated speed rpm	: 450
FULL LOAD DELIVER	Y AT FULL LOAD STOP	TORQUE CONTROL	
Rated speed rpm Aneroid pressure hPa	: 1400 : -	Rated speed rpm rack travel mm Tolerance mm	: 12.05

Rated speed rpm rack travel mm Tolerance mm	: 500 : 12.95 : + 0.05
Rated speed rpm rack travel mm Tolerance mm	: 1000 : 12.80 : + 0.10
Rated speed rpm rack travel mm Tolerance mm	: 1200 : 12.35 : + 0.15
START CUT-OUT	
Rated speed rpm Rated speed rpm	: > 100 : < 220
Check speed 1/min Check	: > 80
speed 1/min	: < 240
FUEL DELIVERY CHA Aneroid pressure hPa Rated speed rpm Del. quantity cm3/1000 strokes cm3/1000 strokes Check tolerance cm3/1000s.	: - : 500 : 64.0 : + 1.5 : + 3.0
Spreed cm3/1000 strokes Check tolerance cm3/1000s.	
Aneroid pressure hPa Rated speed rpm	: – : 1000
Del. quantity cm3/1000 strokes cm3/1000 strokes Check tolerance	: 68.0 : + 1.5 : + 3.0
7 /1000c	
cm3/1000s. Spreed cm3/1000 strokes Check tolerance cm3/1000s.	: 3.5 : 7.0

BREAKAWAY

Rack travel in mm : 11.00
Rated speed rpm : 1445
Tolerance 1/min : + 5

STARTING FUEL DELIVERY

Rated speed rpm : 100 rack travel mm : 20.00 Tolerance mm : -- 1.00

LOW IDLE

Rated speed rpm	: 300		
Del. quantity cm3/1000 strokes cm3/1000 strokes Check tolerance	: 10.0 : + 1.5		
cm3/1000s.	: +- 3.5		
Spreed cm3/1000 strokes Check tolerance	: 4.0		
cm3/1000s.	: 6.0		

End of test specification sheet

DO5

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

: 14.10.96 Edition Test oil : ISO 4113

Combination No. : 9 400 085 351

Injection pump

Pump designation : PES6A95D41ORS2772 EP type number : 9 400 084 018

Governor

Governer design. : RQV300...1300AB1066

: -13L

: 9 420 080 332 Governer no.

Cust. part No. : 024 074 36 02

Customer-spec. information Customer : MBB

Motor : OM 366 LA : 150.0 Power KW

TEST BENCH REQUIREMENTS

Inlet line : 4.1

Test oil inlet

temp. °C Tolerance °C : +- 2.0

Overflow valve : 1 419 992 198

Inlet press. bar : 1.5

Test nozzle holde

: 0 681 343 009 assembly

Opening pressure

: 173.5 bar Tolerance bar : + 1.5

Test lines : 1 680 750 015

Outside diameter : 6.0

x inside diameter : 3.0 x length mm : 600

REMARKS

(A) INJECTION PUMP SETTING VALUES Set equal delivery quant.

per values ____

BEGINNING OF DELIVERY

Test pressure bar : 26.0 Tolerance bar : + 1.0

Prestroke mm 3.25 : +- 0.05 Tolerance mm Check : +- 0.10 tolerance mm

Rack travel in mm: 10.50 Tolerance mm : +- 1.50

Firing order : 1-5-3-6-2-

: 4

Phasing : 0-60-120-180-240

: -300

BASIC SETTING

Rated speed rpm : 1300

Rack travel in mm: 11.45 Tolerance mm : \leftarrow 0.05

Del. quantity cm3/1000 strokes : 104.0

cm3/1000 strokes : +- 1.0

Check tolerance cm3/1000s. : +- 3.0

Spreed cm3/1000 strokes : 3.5

Check tolerance : 8.0 cm3/1000s.

006

Rated speed rpm	: 300 +	Check tolerance	
•	+	cm3/1000s.	: 3.0
	1	Spreed	
Rack travel in m	n: 7.00 🗼	cm3/1000 strokes	: 3.5
Tolerance mm	: + 0.10 +	Check tolerance	
Del. quantity	1	cm3/1000s.	: 8.0
cm3/1000 strokes	: 11.0	0.007 10000	
cm3/1000 strokes			
Check tolerance			
cm3/1000s.	: ← 4.5 ↓	CONTROL LEVER	
Spreed		John Not Leven	
cm3/1000 strokes	: 5.5	control lever	
Check tolerance		position degree	• 60.0
cm3/1000s.	: 9.0	tolerance degree	
CIID7 10003.	· '	toterance degree	4.0
	I	control lever	
(B) SETTING OF IN	LIECTION DUMP	position degree	• 100 0
WITH GOVERNOR	ADECITOR FORM	tolerance degree	
WITH GOVERNOR	I	toter arice degree	. 1 4.0
		RATED SPEED	
GUIDE SLEEVE TRAV	/EI	NATED OFFED	
GOIDE SPEEKE IKAN	T	rack travel mm	: 10.60
Detect speed non	: 300	Rated speed rpm	
Rated speed rpm	: 300	Tolerance 1/min	
guide sleeve	. 105	roterance mini	: +- 5
travel mm	: 1.05	nools Annual no	. / 00
Tolerance mm	: +- 0.25	rack travel mm	: 4.00
	4500	Rated speed rpm	
Rated speed rpm	: 1500 +	Tolerance 1/min	: +- 15
guide sleeve	.		0.50
travel mm	: 8.55	rack travel mm	: 0.50
Tolerance mm	: + 0.05 +	Tolerance mm	: +- 0.50
	+	Rated speed rpm	: 1650
Rated speed rpm	: 500 +		
guide sleeve	+		
travel mm	: 2.55 		
Tolerance mm	: + 0.25 +	LOW IDLE	
	+		
Rated speed rpm	: 750 		
guide sleeve	+	control lever	
travel mm	: 4.20 }	position degree	: 68.0
Tolerance mm	: +- 0.10 +	tolerance degree	: +- 4.0
	+		
	+	control lever	
GUIDE SLEEVE POSI	TION +	position degree	
	+	tolerance degree	: +- 4.0
Rated speed rpm	: 1500	_	
•	+	Testing:	
Rack travel in mm): 16.50 	_	
Tolerance mm		Rated speed rpm	
		rack travel mm	: 7.00
		Tolerance mm	: +- 0.10
FULL LOAD DELIVER	Y AT FULL LOAD STOP		
		Rated speed rpm	: 100
Rated speed rpm	: 1300	and a series of the series of	
Aneroid pressure		CRT mm min.	: > 8.00
hPa	: 900 1	*** * * * ****** *** * * * *	- ·
Del. quantity	1	Rated speed rpm	: 375
cm3/1000 strokes	: 104.0		
	· +- 1.0 1		
cm3/1000 strokes	: +- 1.0 <u>†</u>	TORQUE CONTROL	

		+ Check tolerance
Rated speed rpm	: 1300	+ cm3/1000s. : 8.0
rack travel mm	: 11.45	†
Tolerance mm	: ← 0. 0 5	+ Aneroid pressure
		+ hPa : -
Rated speed rpm	: 800	Rated speed rpm : 500
rack travel mm	: 11.45	<pre>Del. quantity</pre>
Tolerance mm	: +- 0.05	+ cm3/1000 strokes : 48.5
		+ cm3/1000 strokes : +- 1.0
		Check tolerance
ANEROID/ALTITUDE		+ cm3/1000s. : +- 3.0
COMPENSATOR TEST		+ Spreed
COM LIVERTOR 1EST		T cm3/1000 strokes : 3.5
		Check tolerance
SETTING		
SETTING		+ cm3/1000s. : 8.0
	500	†
Rated speed rpm	: 500 : 900 : 11.45	—————————————————————————————————————
Pressure hPa rack travel mm Tolerance mm	: 900	+ BREAKAWAY
rack travel mm	: 11.45	†
Tolerance mm	: ← 0.05	+
		+ Rack travel in mm : 10.60
MEASUREMENT		+ Rated speed rpm : 1360
		+ Tolerance 1/min : + 5
Pressure hPa	: -	<u> </u>
Rated speed rpm	500	1
natea speed (piii	. 566	
Rated speed rpm	• 500	STARTING FUEL DELIVERY
Nated speed ipin	. 200	T STARTING FOLL DECIVERS
Pressure hPa	: 240	Rated speed rpm : 100
		+ Rated speed rpm : 100
rack travel mm		rack travel mm : 12.90
Tolerance mm	: ← 0.10	Tolerance mm : +- 0.10
		+ Del. quantity
Pressure hPa		- cm3/1000 strokes : 76.5
rack travel mm	: 1.65	+ cm3/1000 strokes : +- 7.5
Tolerance mm	: +- 0.05	+ Check tolerance
		+ cm3/1000s. : $+$ 10.0
		-
START CUT-OUT		Ī
Rated speed rpm	; > 100	
Rated speed rpm		LOW IDLE
kated speed thin	. \ 220	T LOW TALE
Chaak		Rated speed rpm : 300
Check	. > 90	
speed 1/min	: > 80	+ Del. quantity
Check	. 0/5	+ cm3/1000 strokes : 11.0
speed 1/min	: < 240	+ cm3/1000 strokes : +- 2.0
		+ Check tolerance
		- + cm3/1000s. : +- 4.5
FUEL DELIVERY CHA	ARACTERISTICS	+ Spreed
		+ cm3/1000 strokes : 5.5
Aneroid pressure		† Check tolerance
hPa	: 900	+ cm3/1000s. : 9.0
Rated speed rpm		+
Del. quantity		1
cm3/1000 strokes	: 94.5	1
cm3/1000 strokes		1
	· - 2.0	
Check tolerance		
cm3/1000s.	: +- 4.0	The second and the second seco
Spreed		+ End of test specification sheet
cm3/1000 strokes	: 5.0	+

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

: 14,10,96 Edition : ISO 4113 Test oil

Combination No. : 9 400 085 383

Injection pump

Pump designation : PES6A95D410RS2772 EP type number : 9 400 084 018

Governor

Governer design. : RQV300...1300AB1066

: -13L

: 9 420 080 332 Governer no.

Cust. part No. : 026 074 53 02

Customer-spec. information

Customer : MBB

: OM 366 LA-EURO 1 Motor

Power KW : 147.1

TEST BENCH REQUIREMENTS

Inlet line : 4.1

Test oil inlet

temp. °C 40 Tolerance °C : +- 2.0

Overflow valve : 1 419 992 198

Inlet press. bar : 1.5

Test nozzle holde

assembly : 0 681 343 009

Opening pressure

173.5 bar : **←** 1.5 Tolerance bar

Test Lines : 1 680 750 015

Outside diameter : 6.0

x inside diameter : 3.0 x length mm : 600

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values _____

BEGINNING OF DELIVERY

Test pressure bar : Tolerance bar : + 1.0

3.25 Prestroke mm : +- 0.05 Tolerance mm

Check

tolerance m_0 : $\leftarrow 0.10$

Rack travel in mm: 10.50 Tolerance mm : \leftarrow 1.50

Firing order : 1-5-3-6-2-

: 4

: 0-60-120-180-240 Phasing

: -300

BASIC SETTING

Rated speed rpm : 1300

Rack travel in mm: 11.45 : + 0.05

Tolerance mm

Del. quantity cm3/1000 strokes : 104.0

cm3/1000 strokes : + 1.0

Check tolerance cm3/1000s. 3.0

Spreed

3.5 cm3/1000 strokes :

Check tolerance cm3/1000s. 8.0

009

Rated speed rpm	: 300	Check tolerance cm3/1000s.	: +- 3.0
Baal Assis &s sm	. 7.00	Spreed	: 3.5
Rack travel in mm		cm3/1000 strokes Check tolerance	
Tolerance mm	; = 0.10	cm3/1000s.	: 8.0
Del. quantity cm3/1000 strokes	: 11.0	CMS/ TUUUS.	: 0.0
cm3/1000 strokes			
Check tolerance	· - 2.0		
cm3/1000s.	: + 4.5	CONTROL LEVER	
	· - 4 ,5	CONTROL LEVER	
Spreed cm3/1000 strokes	: 5.5	control lever	
Check tolerance	•	position degree	• 60.0
cm3/1000s.		tolerance degree	
the/ 10000:		totti ante degree	• • •••
	1	control lever	
(B) SETTING OF INJ	JECTTON PLIMP	position degree	• 109 0
WITH GOVERNOR	1	tolerance degree	
MILLI GOAFWAOW	1	total dilec deglec	4.5
		RATED SPEED	
GUIDE SLEEVE TRAVE	EL 🕹		
	1	rack travel mm	: 10.60
Rated speed rpm	: 300 1	Rated speed rpm	
guide sleeve	1	Tolerance 1/min	
travel mm	: 1.05		
Tolerance mm	: + 0.25 +	rack travel mm	: 4.00
	+	Rated speed rpm	: 1505
Rated speed rpm	: 1500	Tolerance 1/min	
guide sleeve	+		
travel mm	: 8.55	rack travel mm	: 0.50
Tolerance mm	: + 0.05	Tolerance mm	: +- 0.50
	+	Rated speed rpm	: 1650
Rated speed rpm	: 500	, ,	
guide sleeve	+		
travel mm	: 2.55		
Tolerance mm	: + 0.25 +	LOW IDLE	
	+		
Rated speed rpm	: 750 		
guide sleeve	+	control lever	
travel mm	: 4.20	position degree	: 68.0
Tolerance mm	: + 0.10 +	tolerance degree	: +- 4.0
	+		
	+	control lever	40.0
GUIDE SLEEVE POSIT	rion +	position degree	
	+	tolerance degree	: +- 4.0
Rated speed rpm	: 1500	Tankina	
5 1 4 · · · · · ·	†	Testing:	
Rack travel in mm		Ontad	. 700
Tolerance mm	: 1.30 +	Rated speed rpm	
	†	rack travel mm	
CHILLOAN NELTHENY	AT FULL LOAD STOD	Tolerance mm	: 0.10
LOTE TOWN DELIAEKA	AT FULL LOAD STOP	Rated speed rpm	: 100
Dated speed nom	: 1300	varen sheen thii	. 100
Rated speed rpm Aneroid pressure	· 1500	CRT mm min.	: > 8.00
hPa	: 900	OIVE HERR HELLS	. > 0.00
Del. quantity	· 100	Rated speed rpm	• 375
cm3/1000 strokes	· 104.0	nacea apeed i pill	. 5,5
cm3/1000 strokes			
CIIIDA 1000 3 CI OKES	I	TORQUE CONTROL	
	т	. 011402 001111/02	

Rated speed rpm rack travel mm Tolerance mm	: 1300 : 11.45	+ Check tolerance + cm3/1000s. : 8.0
Tolerance mm	: +- 0.05	+ Aneroid pressure
Rated speed rpm rack travel mm Tolerance mm	: 800	+ hPa : - Rated speed rpm : 500
rack travel mm	: 11.45	+ Del. quantity + cm3/1000 strokes : 48.5
roterance mm	: 0.05	+ cm3/1000 strokes : + 1.0
ANEROID/ALTITUDE		
COMPENSATOR TEST		+ Spreed + cm3/1000 strokes : 3.5
SETTING		theck tolerance cm3/1000s. : 8.0
Rated speed rpm Pressure hPa rack travel mm Tolerance mm	: 500	
Pressure hPa	: 900	+ BREAKAWAY
rack travel mm	: 11.45	+
Tolerance mm	: + 0.05	Rack travel in mm: 10.60
MEASUREMENT		Rated speed rpm : 1360
· icrovite fulti		+ Tolerance 1/min : +- 5
Pressure hPa	; -	+
Rated speed rpm	: 500	+
Rated speed rpm	: 500	STARTING FUEL DELIVERY
Pressure hPa	: 240	+ Rated speed rpm : 100
rack travel mm		rack travel mm : 12.90
Tolerance mm		+ Tolerance mm : + 0.10
		+ Del. quantity
Pressure hPa		cm3/1000 strokes : 76.5 cm3/1000 strokes : +- 7.5
rack travel mm Tolerance mm	: 1.05	+ Check tolerance
rocerance min	, +- 0.05	cm3/1000s. : +- 10.0
START CUT-OUT		
Rated speed rpm	: > 100	+
Rated speed rpm		TOM IDLE
Check		Rated speed rpm : 300
speed 1/min	: > 80	+ Del. quantity
Check		+ cm3/1000 strokes : 11.0
speed 1/min	: < 240	+ cm3/1000 strokes : +- 2.0 + Check tolerance
		+ cm3/1000s. : +- 4.5
FUEL DELIVERY CHA	ARACTERISTICS	Spreed
		- cm3/1000 strokes : 5.5
Aneroid pressure	. 000	+ Check tolerance
hPa Beted speed rom	: 900 : 8 0 0	cm3/1000s. : 9.0
Rated speed rpm Del. quantity	, 000	I
cm3/1000 strokes	: 94.5	1
cm3/1000 strokes		+
Check tolerance		+
cm3/1000s.	: +- 4.0	Find of topt appointment about
Spreed cm3/1000 strokes	: 5.0	End of test specification sheet
JIIIJ TUDO DEI ONES	. 3.0	ı

Note remarks

Refer to Service Info for test and adjustment instructions.
See microcard(s) W400/...

Edition : 29.10.96 Test oil : ISO 4113

Combination No. : 9 400 085 378

Injection pump

Pump designation : PES6A100D320/3RS2827

EP type number : 9 400 084 030

Governor

Governer design. : RSV400...900A7C2209

: -4R

Governer no. : 9 420 083 301

Cust. part No. : 3355291

Customer—spec. information
Customer : CUMMINS
Motor : 6 CTA 240
Power KW : 180.0

TEST BENCH REQUIREMENTS

Inlet line : 3.2

Test oil inlet

temp. °C : 40
Tolerance °C : + 2.0

Overflow valve : 1 419 992 198

Inlet press. bar : 1.5

Test nozzle holde

assembly : 0 681 343 009

Opening pressure

bar : 173.5 Tolerance bar : + 1.5

Test Lines : 1 680 750 014

Outside diameter : 6.0

,

x inside diameter : 2.0
x length mm : 600

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values ____

BEGINNING OF DELIVERY

Test pressure bar : 26.0 Tolerance bar : + 1.0

Prestroke mm : 2.65
Tolerance mm : + 0.05
Check
tolerance mm : + 0.10

Rack travel in mm : 10.50 Tolerance mm : + 1.50

Firing order : 1-5-3-6-2-

: 4

Phasing : 0-60-120-180-240

: -300

Start of delivery blocking

*NW after s.o.d. : 11.00 Tolerance : + 0.10

Check

tolerance °NW : +- 0.23

Barrel no. : 1

Beginning of delivery differende

and maximum rack

travel : 10.50
Tolerance mm : + 1.50
Difference CS : 4.00

BASIC SETTING

Rated speed rpm : 880

	+ Check tolerance
Rack travel in mm: 13.05	cm3/1000s. : +- 3.0
Tolerance mm : +- 0.05	+ Spreed
	+ cm3/1000 strokes : 3.5
Del. quantity	+ Check tolerance
cm3/1000 strokes : 159.5	t cm3/1000s. : 8.0
cm3/1000 strokes : + 1.0	1
Check tolerance	+ CONTROL LEVER
cm3/1000s. : + 3.0	control lever
Spreed	position degree : 108.0
cm3/1000 strokes : 3.5	tolerance degree : +- 4.0
Oh and Andrews	+
Check tolerance cm3/1000s. : 8.0	ASSEMBLY GOVERNOR SETTING
CM3/10003 0.0	ASSEMBLE GOVERNOR SETTING
Rated speed rpm : 400	Rated speed rpm : 923
	+ rack travel mm : 12.00
Rack travel in mm : 4.20	Rated speed rpm : 963
Tolerance mm : + 0.10	Tolerance 1/min : +- 4
Del. quantity	rack travel mm : 4.00
cm3/1000 strokes : 11.0	7.05
cm3/1000 strokes : +- 2.0 Check tolerance	+ rack travel mm : 0.85 + Tolerance mm : +- 0.55
cm3/1000s. : +- 4.5	Rated speed rpm : 1100
Spreed	+
cm3/1000 strokes : 5.5	+ Rated speed rpm : 924
Check tolerance cm3/1000s. : 9.0	+ rack travel mm : 12.00
CIID/ 10003 9.0	Rated speed rpm : 964
	+ Tolerance 1/min : + 4
(B) SETTING OF INJECTION PUMP	+ rack travel mm : 4.00
WITH GOVERNOR	+ rack travel mm : 0.85
	+ Tolerance mm : + 0.55
	+ Rated speed rpm : 1100
GUIDE SLEEVE POSITION	+
Rated speed rpm : 800	+ Rated speed rpm : 925 + rack travel mm : 12.00
Rated Speed (Mill : OOO	+ 14th travet min . 12.00
Rack travel in mm : 0.65	+ Rated speed rpm : 965
Tolerance mm : + 0.35	+ Tolerance 1/min : + 4
governor spring	rack travel mm : 4.00
pre-tension	rack travel mm : 0.85
click setting x : 5.50	+ Tolerance mm : +- 0.55
	+ Rated speed rpm : 1100
FULL LOAD DELIVERY AT FULL LOAD STOP	+ Rated speed rpm : 926
TOLL COMP DELIVERY AT FOLE LOAD STOP	+ rack travel mm : 12.00
Rated speed rpm : 880	+
Aneroid pressure	+ Rated speed rpm : 966
hPa : -	+ Tolerance 1/min : +- 4 + rack travel mm : 4.00
Del. quantity cm3/1000 strokes : 159.5	T 18CK C18VEC (HIII) . 4.00
cm3/1000 strokes : + 1.0	rack travel mm : 0.85
	+ Tolerance mm : + 0.55

1100 Rated speed rpm 927 Rated speed rpm rack travel mm 12.00 967 Rated speed rpm Tolerance 1/min : +rack travel mm 4.00 rack travel mm 0.85 : + 0.85 Tolerance mm Rated speed rpm 1100 928 Rated speed rpm rack travel mm 12.00 968 Rated speed rpm Tolerance 1/min 4.00 rack travel mm rack travel mm : 0.85 : +- 0.55 Tolerance mm Rated speed rpm : 1100 LOW IDLE control lever position degree : 78.0 tolerance degree : + 4.0 Setting point w/out bumper spring 400 Rated speed rpm : rack travel mm 3.70 Testing: 400 Rated speed rpm 4.20 rack travel mm : + 0.10Tolerance mm 2.00 rack travel mm Rated speed rpm 435 30 Tolerance 1/min 100 Rated speed rpm : : > 19.00 CRT mm min. TORQUE CONTROL 880 Rated speed rpm 13.05 rack travel mm : **←** 0.05 Tolerance mm Rated speed rpm 500

13.10

: +- 0.10 Tolerance mm Rated speed rpm 350 rack travel mm : 14.40 : +- 0.30 Tolerance mm STARTING FUEL DELIVERY Rated speed rpm 100 20.00 rack travel mm : : +- 1.00 Tolerance mm Del. quantity cm3/1000 strokes : 166.0 cm3/1000 strokes : + 8.0 Check tolerance cm3/1000s. : + 11.0 LOW IDLE 400 Rated speed rpm : Del. quantity cm3/1000 strokes : 11.0 cm3/1000 strokes : +-2.0 Check tolerance cm3/1000s. : + 4.5 Spreed cm3/1000 strokes : 5.5 Check tolerance : cm3/1000s. 9.0

End of test specification sheet

rack travel mm

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

Edition : 28.10.96 Test oil : ISO 4113

Combination No. : 9 400 085 385

Injection pump

Pump designation : PES6A95D41ORS2886 EP type number : 9 400 084 039

Governor

Governer design. : RQV300...1300AB1306L

Governer no. : 9 420 080 384

Cust. part No. : 0260745502

Customer-spec. information Customer : MBB Motor : OM 366 A Power KW : 125.0

TEST BENCH REQUIREMENTS

Inlet line : 4.1

Test oil inlet

temp. °C Tolerance °C

Overflow valve : 1 419 992 198

Inlet press. bar : 1.5

Test nozzle holde

: 0 681 343 009 assembly

Opening pressure

: 173.5 : + 1.5 Tolerance bar

Test lines : 1 680 750 015

Outside diameter : 6.0

x inside diameter: 3.0 x length mm : 600

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values ____

BEGINNING OF DELIVERY

Test pressure bar : 26.0 Tolerance bar : + 1.0

Prestroke mm : 3.00 Tolerance mm : + 0.05

Check

tolerance mm : + 0.10

Rack travel in mm: 10.50 Tolerance mm : +- 1.50

Firing order : 1-5-3-6-2-

: 0-60-120-180-240 Phasing

: -300

BASIC SETTING

Rated speed rpm : 1300

Rack travel in mm: 10.85 Tolerance mm : +- 0.05

Del. quantity

cm3/1000 strokes : 83.0

cm3/1000 strokes : + 1.0

Check tolerance

cm3/1000s.: +- 3.0

Spreed

cm3/1000 strokes : 3.5

Check tolerance

: cm3/1000s. 8.0

Rated speed rpm : 300	† Check tolerance
	+ cm3/1000s. : +- 3.0 + Spreed
Rack travel in mm: 8.00	+ cm3/1000 strokes : 3.5
Tolerance mm : + 0.10	- Check tolerance
Del. quantity	+ cm3/1000s. : 8.0
cm3/1000 strokes : 10.5	
cm3/1000 strokes : + 2.0	T
	†
Check tolerance cm3/1000s. : + 4.5	
	+ CONTROL LEVER
Spreed	- t
cm3/1000 strokes : 5.5	+ control lever
Check tolerance	+ position degree : 60.0
cm3/1000s. : 9.0	+ tolerance degree : +- 4.0
	+
	+ control lever
(B) SETTING OF INJECTION PUMP	position degree : 109.0
WITH GOVERNOR	+ tolerance degree : + 4.0
	<u> </u>
	+ RATED SPEED
GUIDE SLEEVE TRAVEL	1,11120 01220
GOINE SECENT HANGE	rack travel mm : 9.80
Rated speed rpm : 300	+ Rated speed rpm : 1355
	Tolonomes 1/min : 1333
guide steeve	+ Tolerance 1/min : + 5
travel mm : 1.05	†
Tolerance mm : +- 0.25	+ rack travel mm : 4.00
	+ Rated speed rpm : 1485
Rated speed rpm : 1500	+ Tolerance 1/min : + 15
guide sleeve	+
guide sleeve travel mm : 8.55	+ rack travel mm : 0.50
Tolerance mm : +- 0.05	→ Tolerance mm : ← 0.50
	+ Rated speed rpm : 1600
Rated speed rpm : 500	
guide sleeve	1
travel mm : 2.55	
travel mm : 2.55 Tolerance mm : + 0.25	+ LOW IDLE
Total ance in	T CON IDEC
Rated speed rpm : 750	I
guide sleeve	T control lever
travel mm : 4.20	position degree : 70.0
Tolerance mm : + 0.10	tolerance degree : + 4.0
	†t1 1
AUTHOR OF PRICE PROCESSAL	+ control lever
GUIDE SLEEVE POSITION	position degree : 22.0
	tolerance degree : + 4.0
Rated speed rpm : 1500	†
	† Testing:
Rack travel in mm : 16.50	+
Tolerance mm : +- 1.30	+ Rated speed rpm : 300
	rack travel mm : 8.00
	rack travel mm : 8.00 Tolerance mm : + 0.10
FULL LOAD DELIVERY AT FULL LOAD STOP	+
	+ Rated speed rpm : 100
Rated speed rpm : 1300	+
Aneroid pressure	+ CRT mm min. : > 8.70
hPa : 900	1
Del. quantity	Rated speed rpm : 375
cm3/1000 strokes : 83.0	Tured speed (pill : 3/3
	I
cm3/1000 strokes : +- 1.0	TORQUE CONTROL
	T TONGOE CONTROL

		+
Rated speed rpm rack travel mm Tolerance mm	: 1300 : 10.85 : +- 0.05	+
Rated speed rpm rack travel mm Tolerance mm	: 700 : 11.75 : + 0.05	+
Rated speed rpm rack travel mm Tolerance mm	: 1000 : 11.15 : ← 0.05	+
Rated speed rpm rack travel mm Tolerance mm	: 600 : 11.85 : +- 0.05	† † † +
ANEROID/ALTITUDE COMPENSATOR TEST		+++++++++++++++++++++++++++++++++++++++
SETTING		‡
Rated speed rpm Pressure hPa rack travel mm Tolerance mm	: 500 : 900 : 11.85 : ← 0.05	† † † †
MEASUREMENT		<u> </u>
Pressure hPa Rated speed rpm	: - : 500	+
Rated speed rpm	: 500	1
Pressure hPa rack travel mm Tolerance mm	: 250 : 0.60 : ← 0.10	+++++++++++++++++++++++++++++++++++++++
Pressure hPa rack travel mm Tolerance mm	: 450 : 1.75 : ← 0.05	† + + + +
START CUT-OUT		Ī
Rated speed rpm Rated speed rpm	: > 100 : < 250	+
Check speed 1/min Check	: > 80	† †
speed 1/min	: < 260	‡
FUEL DELIVERY CHA	RACTERISTICS	<u>†</u>
Aneroid pressure hPa	: 900	Ī

Rated speed rpm Del. quantity	:		700
cm3/1000 strokes cm3/1000 strokes	:	+-	82.5 2.0
Check tolerance cm3/1000s.	:	+-	4.0
Aneroid pressure			
hPa	:		_
Rated speed rpm	:		500
Del. quantity			
cm3/1000 strokes	:		42.5
cm3/1000 strokes	:	+-	1.0
Check tolerance			
cm3/1000s.	:	+-	3.0

BREAKAWAY

Rack travel in mm: 9.80 Rated speed rpm : 1355 Tolerance 1/min : +-

STARTING FUEL DELIVERY

Rated speed rpm : rack travel mm : 100 13.80 : + 0.10 Tolerance mm Del. quantity cm3/1000 strokes : 78.0 cm3/1000 strokes : +- 7.5Check tolerance cm3/1000s. : +- 10.0

LOW IDLE

Rated speed rpm : 300 Del. quantity cm3/1000 strokes : 10.5 cm3/1000 strokes : +-2.0 Check tolerance cm3/1000s. : +- 4.5 Spreed cm3/1000 strokes : 5.5 Check tolerance cm3/1000s. 9.0

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

: 28.10.96 Test oil

Combination No. : 9 400 085 388

Injection pump

Pump designation : PES6A95D410RS2886 EP type number : 9 400 084 039

Governor

Governer design. : RQV300...1300AB1306L

Governer no. : 9 420 080 384

Cust. part No. : 0260746702

Customer-spec. information

Customer : MBB Motor : OM 3

: OM 366A EURO I

Power KW : 125.0

TEST BENCH REQUIREMENTS

Inlet line : 4.1

Test oil inlet

temp. °C 40 temp. *C : 40
Tolerance *C : +- 2.0

Overflow valve : 1 419 992 198

Inlet press. bar : 1.5

Test nozzle holde

: 0 681 343 009 assembly

Opening pressure

: 173.5 Tolerance bar : + 1.5

Test lines : 1 680 750 015

Outside diameter : 6.0

x inside diameter : 3.0 x length mm : 600

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values _____

BEGINNING OF DELIVERY

Test pressure bar : 26.0 Tolerance bar : +- 1.0

Prestroke mm : 3.00 Tolerance mm : + 0.05

tolerance mm : + 0.10

Rack travel in mm : 10.50 Tolerance mm : +- 1.50

Firing order : 1-5-3-6-2-

: 4

Phasing : 0-60-120-180-240

: -300

BASIC SETTING

Rated speed rpm : 1300

Rack travel in mm: 10.85 Tolerance mm : + 0.05

Del. quantity

cm3/1000 strokes : 83.0

cm3/1000 strokes : +- 1.0

Check tolerance

cm3/1000s. : +- 3.0

Spreed

cm3/1000 strokes : 3.5

Check tolerance

cm3/1000s.

8.0

Rated speed rpm : 300 +	- Check tolerance
4	- cm3/1000s. + 3.0
1	- Spreed
Rack travel in mm: 8.00	- cm3/1000 strokes : 3.5
Tolerance mm : + 0.10	- Check tolerance
Del. quantity	- cm3/1000s. : 8.0
cm3/1000 strokes : 10.5	
cm3/1000 strokes : 10.5	•
cm3/1000 strokes : + 2.0	•
Check tolerance	CONTROL LEVES
cm3/1000s. : + 4.5	- CONTROL LEVER
Spreed	
cm3/1000 strokes : 5.5	control lever
Check tolerance	position degree : 60.0
cm3/1000s. : 9.0 +	tolerance degree : + 4.0
+	•
+	- control lever
(B) SETTING OF INJECTION PUMP	- position degree : 109.0
WITH GOVERNOR +	tolerance degree : +- 4.0
4	•
+	RATED SPEED
GUIDE SLEEVE TRAVEL	
4	rack travel mm : 9.80
Rated speed rpm : 300	Rated speed rpm : 1355
guide sleeve	Tolerance 1/min : + 5
travel mm : 1.05	•
Tolerance mm : + 0.25	rack travel mm : 4.00
TO COT GITTED THAN	Rated speed rpm : 1485
Rated speed rpm : 1500	Tolerance 1/min : + 15
guide sleeve	. Total ance mining
travel mm : 8.55	rack travel mm : 0.50
Tolerance mm : + 0.05	Tolerance mm : +- 0.50
Toterance min . +- 0.05	
Datad anad man . 500	Rated speed rpm : 1600
Rated speed rpm : 500	•
guide sleeve	•
travel mm : 2.55 +	
Tolerance mm : \leftarrow 0.25	LOW IDLE
750	
Rated speed rpm : 750	
guide sleeve +	control lever
travel mm : 4.20	position degree : 70.0
Tolerance mm : ← 0.10 +	tolerance degree : +- 4.0
+	
	control lever
GUIDE SLEEVE POSITION +	position degree : 22.0
+	tolerance degree : +- 4.0
Rated speed rpm : 1500	
<u> </u>	Testing:
Rack travel in mm : 16.50	-
Tolerance mm : + 1.30 +	Rated speed rpm : 300
↓	rack travel mm : 8.00
	Tolerance mm : + 0.10
FULL LOAD DELIVERY AT FULL LOAD STOP	. See all see that
- OPE BOUND APPEARING AND AND AND AND AND AND AND AND AND AND	Rated speed rpm : 100
Rated speed rpm : 1300	The second secon
Aneroid pressure	CRT mm min. :> 8.70
hPa : 900	U11 11111 1711 171 171 171 171 171 171 1
Del. quantity	Rated speed rpm : 375
cm3/1000 strokes : 83.0	nated speed (pill + 3/)
cm3/1000 strokes : \leftarrow 1.0	TODOLE CONTROL
†	TORQUE CONTROL

Rated speed rpm rack travel mm Tolerance mm	: 1300 : 10.85 : +- 0.05		
Rated speed rpm rack travel mm Tolerance mm	: 700 : 11.75 : + 0.05		
Rated speed rpm rack travel mm Tolerance mm	: 1000 : 11.15 : ← 0.05		
Rated speed rpm rack travel mm Tolerance mm	: 600 : 11.85 : ← 0.05		
ANEROID/ALTITUDE COMPENSATOR TEST			
SETTING			
Rated speed rpm Pressure hPa rack travel mm Tolerance mm	: 500 : 900 : 11.85 : + 0.05		
MEASUREMENT			
Pressure hPa Rated speed rpm	: - : 500		
Rated speed rpm	: 500		
Pressure hPa rack travel mm Tolerance mm	: 250 : 0.60 : ← 0.10		
Pressure hPa rack travel mm Tolerance mm	: 450 : 1.75 : + 0.05		
START CUT-OUT			
Rated speed rpm Rated speed rpm			
Check speed 1/min	: > 80		
Check speed 1/min	: < 260		
FUEL DELIVERY CHARACTERISTICS			
Aneroid pressure hPa	: 900		

: 700 : 82.5 : + 2.0 : + 4.0
: - : 500 : 42.5 : + 1.0 : + 3.0
: 9.80 : 1355 : +- 5 EVERY : 100 : 13.80 : +- 0.10 : 78.0 : +- 7.5 : +- 10.0
700
: 300 : 10.5 : + 2.0 : + 4.5 : 5.5 : 9.0

End of test specification sheet

D20

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

: 22.10.96 Edition Test oil : ISO 4113

Combination No. : 0 402 066 709

Injection pump

Pump designation : PES6P120A120RS3358

EP type number : 0 412 026 784

Governor

Governer design. : RSV475...1100P0A632

Governer no. : 0 421 833 539

Cust. part No. : 3929602

Customer-spec. information Customer : CDC

: 6BTA ELITE Motor

: 130.0 Power KW

TEST BENCH REQUIREMENTS

Inlet line : 3.2

Test oil inlet

40 temp. °C Tolerance °C

: 2 417 413 093 Overflow valve

Inlet press. bar : Tolerance bar $: \leftarrow 0.1$

Test nozzle holde

: 1 688 901 103 assembly

Opening pressure

208.5 bar Tolerance bar : **←** 1.5

: 1 680 750 089 Test lines

Outside diameter : 8.0

x inside diameter: 3.0 x length mm :

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values _____

BEGINNING OF DELIVERY

Test pressure bar: Tolerance bar : +- 1.0

Prestroke mm : 2.85 : +- 0.05 Tolerance mm

Check

tolerance mm : + 0.10

Rack travel in mm : 10.50 Tolerance mm : + 1.50

Firing order : 1-5-3-6-2-

Phasing : 0-60-120-180-240

: -300

Tolerance : +- 0.30

Check

tolerance °NW : +- 0.50

Start of delivery blocking

*NW after s.o.d. : 6.75 : +- 0.50 Tolerance

Check

tolerance °NW : +- 0.75

Barrel no. : 1

BASIC SETTING

Rated speed rpm : 1100

Rack travel in mm : 11.20

Tolerance mm : +-	- 0.05	cm3/1000 strokes Check tolerance	: 4.0
Del. quantity cm3/1000 strokes :	138.5	cm3/1000s.	: 7.5
cm3/1000 strokes : +	- 1.0	CONTROL LEVER	
Check tolerance cm3/1000s. : +-	- 3.0	control lever	: 93.0
Spreed cm3/1000 strokes :	4.0	tolerance degree RATED SPEED	
Check tolerance cm3/1000s. :	7.5	rack travel mm Rated speed rpm	
Rated speed rpm :	475	Tolerance 1/min	
Rack travel in mm : Tolerance mm : + Del. quantity		rack travel mm Rated speed rpm Tolerance 1/min	: 1230
cm3/1000 strokes : cm3/1000 strokes : +- Check tolerance	- · · ·	rack travel mm Tolerance mm Rated speed rpm	: ← 0.55
Spreed cm3/1000 strokes : Check tolerance	+	LOW IDLE	
cm3/1000s. :	9.0	LOW IDEE	
(B) SETTING OF INJECTI WITH GOVERNOR	ION PUMP	control lever position degree tolerance degree	: + 4.0
	‡	Setting point w/o	ut bumper spring
GUIDE SLEEVE POSITION	+	Rated speed rpm rack travel mm	
Rated speed rpm :	800	Testing:	
Rack travel in mm : Tolerance mm : +- governor spring	0.50 - 0.20	Rated speed rpm rack travel mm Tolerance mm	: 475 : 5.40 : + 0.20
pre-tension click setting x :	2.50	rack travel mm Rated speed rpm Tolerance 1/min	: 2.00 : 630 : + 30
FULL LOAD DELIVERY AT	FULL LOAD STOP	Rated speed rpm	: 100
Aneroid pressure	1500	CRT mm min.	: < 19.00
Del. quantity cm3/1000 strokes :	138.5	TORQUE CONTROL	
Check tolerance cm3/1000s. : +- Spreed	_ 	Rated speed rpm rack travel mm Tolerance mm	

Rated speed rpm : 750 rack travel mm : 12.00 Tolerance mm : +- 0.10

ANEROID/ALTITUDE COMPENSATOR TEST

SETTING

Rated speed rpm : 500 Pressure hPa : 1500

MEASUREMENT

Pressure hPa : Rated speed rpm : 500
rack travel mm : 8.45
Tolerance mm : +- 0.20

Rated speed rpm : 500

Pressure hPa : 975 rack travel mm : 11.20 Tolerance mm : + 0.20

Pressure hPa : 575 rack travel mm : 9.50 Tolerance mm : +- 0.20

FUEL DELIVERY CHARACTERISTICS

Aneroid pressure

hPa : 1500
Rated speed rpm : 750
Del. quantity
cm3/1000 strokes : 170.0
cm3/1000 strokes : + 3.0
Check tolerance
cm3/1000s. : + 6.0
Spreed

cm3/1000 strokes : 8.0

Check tolerance

cm3/1000s. : 12.0

Aneroid pressure

hPa : Rated speed rpm : 500
Del. quantity
cm3/1000 strokes : 86.5
cm3/1000 strokes : +- 2.0

Check tolerance

cm3/1000s. : +- 4.0

BREAKAWAY

Rack travel in mm: 10.20
Rated speed rpm: 1145
Tolerance 1/min: -- 5

STARTING FUEL DELIVERY

Rated speed rpm : 100 rack travel mm : 21.00 Tolerance mm : + 0.50 Del. quantity cm3/1000 strokes : + 20.0 Check tolerance cm3/1000s. : +- 25.0

LOW IDLE

Rated speed rpm : 475
Del. quantity
cm3/1000 strokes : 24.5
cm3/1000 strokes : +- 2.0
Check tolerance
cm3/1000s. : +- 4.5
Spreed
cm3/1000 strokes : 6.0
Check tolerance
cm3/1000s. : 9.0

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

Edition : 22.10.96 Test oil : ISO 4113

Combination No. : 0 402 746 611

Injection pump

Pump designation : PES6P120A320RS7372 EP type number : 0 412 726 940

Governor

Governer design. : RQV250...1400PA1279K

Governer no. : 0 421 815 508

Cust. part No. : 3866783

Customer—spec. information Customer : CDC Motor : 6BTA Power KW : 235.0

TEST BENCH REQUIREMENTS

Inlet line : 3.2

Test oil inlet

temp. °C : 40
Tolerance °C : + 2.0

Overflow valve : 2 417 413 093

Inlet press. bar : 2.0 Tolerance bar : + 0.1

Test nozzle holde

assembly : 1 688 901 103

Opening pressure

bar : 208.5 Tolerance bar : + 1.5

Test Lines : 1 680 750 015

Outside diameter : 6.0

x inside diameter: 3.0 x length mm : 600

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values _____

BEGINNING OF DELIVERY

Test pressure bar : 17.0 Tolerance bar : + 1.0

Prestroke mm : 4.00 Tolerance mm : + 0.05 Check

tolerance mm : +- 0.10

Rack travel in mm : 10.50 Tolerance mm : + 1.50

Firing order : 1-5-3-6-2-

: 4

Phasing : 0-60-120-180-240

: -300

Tolerance : \leftarrow 0.30

Check

tolerance °NW : + 0.75

Start of delivery blocking

*NW after s.o.d. : 11.00 Tolerance : + 0.50

Check

tolerance *NW : + 0.75

Barrel no. : 1

BASIC SETTING

Rated speed rpm : 1400

Rack travel in mm : 13.45
Tolerance mm : + 0.05

oterance mm : +- U.U5

cm3/1000 strokes : +- 1.0	Anaraid procesure
CMD/ 1000 5t1 0tes . F= 1.0	+ Aneroid pressure + hPa : 1200
Check tolerance	+ cm3/1000 strokes : +- 1.0
cm3/1000s. : +- 4.0	+ Check tolerance
	+ cm3/1000s. : +- 4.0
Spreed	Spreed
cm3/1000 strokes : 8.0	cm3/1000 strokes : 8.0
Check tolerance	+ Check tolerance + cm3/1000s. : 12.0
cm3/1000s. : 12.0	T CIID/ 10003 12.0
	1
Rated speed rpm : 300	
•	+ CONTROL LEVER
Rack travel in mm: 7.10	†
Tolerance mm : + 0.20	control lever position degree : 118.5
cm3/1000 strokes : +- 3.0	tolerance degree : + 4.0
Check tolerance	1
cm3/1000s. : +- 5.0	RATED SPEED
Spreed	†
cm3/1000 strokes : 5.0 - Check tolerance -	rack travel mm : 12.80
cm3/1000s. : 8.0	+ Rated speed rpm : 1465 + Tolerance 1/min : +- 5
	+ Total and Training
	rack travel mm : 6.80
(B) SETTING OF INJECTION PUMP	Rated speed rpm : 1580
WITH GOVERNOR -	Tolerance 1/min : +- 15
	t - rack travel mm : 0.50
GUIDE SLEEVE TRAVEL	Tolerance mm : +- 0.50
-	Rated speed rpm : 1725
Rated speed rpm : 275 -	+
guide sleeve	†
travel mm : 1.39 - Tolerance mm : + 0.20 -	LOW IDLE
Toterance was . *** 0.20	LOW IDLE
Rated speed rpm : 1455	1
guide sleeve -	control lever
travel mm : 9.16 -	position degree : 74.5
Tolerance mm : + 0.15	tolerance degree : +- 4.0
Rated speed rpm : 931	† Testing:
guide steeve	
travel mm : 5.67	Rated speed rpm : 300
Tolerance mm : + 0.25	rack travel mm : 7.10
700	Tolerance mm : +- 0.20
Rated speed rpm : 480	T Rated speed rpm : 200
guide steeve - travel mm : 3.18 -	r Kated Speed rpm : 200 L
Tolerance mm : +- 0.25	CRT mm min. :> 8.60
	-
Rated speed rpm : 1860	Rated speed rpm : 350
guide sleeve	†
travel mm : 13.50 - Tolerance mm : +- 0.50 -	TORQUE CONTROL
Tolerance mm : +- 0.50	- TORGOE CONTROL
	Rated speed rpm : 1400
FULL LOAD DELIVERY AT FULL LOAD STOP	rack travel mm : 13.45
	Tolerance mm : +- 0.05

Rated speed rpm : 1400

Rated speed rpm : 1000 rack travel mm : 13.20 : +- 0.10 Tolerance mm Rated speed rpm : 700 rack travel mm : 13.00 : +- 0.20 Tolerance mm ANEROID/ALTITUDE COMPENSATOR TEST SFTTING Rated speed rpm : 1400 Pressure hPa : 1200 MEASUREMENT Pressure hPa Rated speed rpm : 1000 rack travel mma : 9.80 : **←** 0.20 Tolerance mm Rated speed rpm : 1400 Pressure hPa : 620 rack travel mm : 12.40 Tolerance mm : +- 0.20 Pressure hPa : 280 rack travel mm : 10.70 Tolerance mm : + 0.20START CUT-OUT 100 Rated speed rpm : > Rated speed rpm : < 200 Check speed 1/min : > 80 Check speed 1/min : < 210 FUEL DELIVERY CHARACTERISTICS Aneroid pressure 1200 hPa Rated speed rpm : 1000 cm3/1000 strokes : +- 3.0Check tolerance cm3/1000s. : +- 6.0 Spreed cm3/1000 strokes : 8.0 Check tolerance

: 12.0

Aneroid pressure hPa Rated speed rpm : 1000 cm3/1000 strokes : \leftarrow 1.0 Check tolerance cm3/1000s. : +- 3.0 BREAKAWAY Rack travel in mm : 12.80 Rated speed rpm : 1465 Tolerance 1/min : +- 5 STARTING FUEL DELIVERY Rated speed rpm : 100 rack travel mm : 21.00 Tolerance mm : +- 0.50 cm3/1000 strokes : +- 20.0 Check tolerance : +- 25.0 cm3/1000s.LOW IDLE Rated speed rpm : 300 cm3/1000 strokes : +- 3.0 Check tolerance cm3/1000s. : **←** 5.0 Spreed

End of test specification sheet

5.0

8.0

cm3/1000 strokes :

Check tolerance

cm3/1000s.

cm3/1000s.

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

: 23,09,96 Edition Test oil : 23.09.96

Combination No. : 0 402 746 652

Injection pump

Pump designation : PES6P120A320RS7372 EP type number : 0 412 726 940

Governor

Governer design. : RQV250...1500PA1222K

Governer no. : 0 421 815 466

Cust. part No. : 3897621

Customer-spec. information Customer : CDC : 6BTA Motor : 265.0 Power KW

TEST BENCH REQUIREMENTS

Inlet line : 3.2

Test oil inlet

: 40 : +- 2.0 temp. °C Tolerance °C

Overflow valve : 2 417 413 093

Inlet press. bar : 2.0 Tolerance bar : + 0.1

Test nozzle holde

: 1 688 901 103 assembly

Opening pressure

bar : 208.5 Tolerance bar : + 1.5

Test Lines : 1 680 750 015

Outside diameter : 6.0

x inside diameter: 3.0 x length mm : 600

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values _____

BEGINNING OF DELIVERY

Test pressure bar : 17.0 Tolerance bar : +- 1.0

Prestroke mm : 4.00 Tolerance mm : +- 0.05 Check tolerance mm : + 0.10

Rack travel in mm : 10.50 Tolerance mm : \leftarrow 1.50

Firing order : 1-5-3-6-2-: 4

Phasing : 0-60-120-180-240

: -300

Tolerance : +- 0.30

Check

tolerance *NW : +- 0.75

Start of delivery blocking

*NW after s.o.d. : 12.00 Tolerance : + 0.50

Check

tolerance °NW : +- 0.75

Barrel no. : 1

BASIC SETTING

Rated speed rpm : 1500

Rack travel in mm: 13.75 Tolerance mm : +- 0.05

D27

## 1200 ## 120	_		+ Rated speed rpm	: 1500
Del. quantity	el quantity	040 5	+ Aneroid pressure	4000
m3/1000 strokes : + 1.0 cm3/1000 strokes : 212.5 meck tolerance n3/1000s. : + 4.0 cm3/1000s. : + 4.0 may 1000s. : + 4.0 cm3/1000s. : + 4.0 preed n3/1000s. : 12.0 cm3/1000s. : + 4.0 meck tolerance n3/1000s. : 12.0 cm3/1000s. : 12.0 meck tolerance n3/1000s. : 12.0 cm3/1000s. : 12.0 meck tolerance n3/1000s. : 12.0 cm3/1000s. : 12.0 may 1000s. : 12.0 cm3/1000s. : 12.0 may 1000s. : 12.0 cm3/1000s. : 12.0 may 1000s. : 12.0 control lever position degree : 122.5 may 1000s. : 12.0 control lever position degree : 122.5 may 1000s. : 12.0 control lever position degree : 122.5 may 1000s. : 12.0 max 12.0 max 12.0 max 12.0 max 12.0 max 12.0 max 12.0 max 12.0 max 12.0 max 12.0 max 12.0 max 12.0	cm3/1000 strokes	: 212.5		: 1200
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Check tolerance Check tolerance Cm3/1000s. : 4.0 Spreed Cm3/1000 strokes 8.0 Check tolerance Cm3/1000 strokes 8.0 Check tolerance	IID I IUUU SEI OKES	. +- 1.0		
max max	neck tolerance		 1	
Spreed		: +- 4.0		: 4.0
Signature Sign			1	,,,,
### A 1000 strokes : 8.0	preed			: 8.0
### ack tolerance ### ack tolerance ### ack tolerance ### ack travel in mm : 6.40	m3/1000 strokes	: 8.0	+ Check tolerance	
12.0			+ cm3/1000s.	: 12.0
CONTROL LEVER Control Lever Control Leve	heck tolerance		†	
control lever position degree : 122.5 tolerance mm : + 0.20 tolerance mm : + 0.20 tolerance mm : + 0.20 tolerance degree : + 6.0 tolerance mm : 12.70 tolerance 13/1000s. : + 5.0 tolerance 1/min : + 5 tolerance 1/min : + 5 tolerance 1/min : + 5 tolerance 1/min : + 5 tolerance 1/min : + 15 tolerance mm : + 0.50 tolerance mm : + 0.50 tolerance mm : + 0.50 tolerance mm : + 0.50 tolerance mm : + 0.50 tolerance mm : + 0.50 tolerance mm : + 0.20 tolerance mm : + 0.20 tolerance degree : 72.0 tolerance degree : + 6.0 tolerance degree : + 6.0 tolerance degree : + 6.0 tolerance mm : + 0.25 tolerance degree : + 6.0 tolerance mm : + 0.25 tolerance degree : + 6.0 tolerance mm : + 0.20 tolerance mm : + 0.25 tolerance mm : +	n3/1000s.	: 12.0	†	
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			+	
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Rated speed rpm : 300 rack travel mm : 6.40 rack	uide sleeve		+	
Rated speed rpm : 300 rack travel mm : 6.40 rack travel mm : 4.20 rack	ravel mm		+ Testing:	
ted speed rpm : 986	lerance mm	: +- 0.15	†	
ride sleeve avel mm : 5.80 lerance mm : + 0.25 ted speed rpm : 480 ride sleeve avel mm : 3.00 lerance mm : + 0.25 TORQUE CONTROL				
avel mm : 5.80 lerance mm : + 0.25 ted speed rpm : 480 ride sleeve avel mm : 3.00 lerance mm : + 0.25 LL LOAD DELIVERY AT FULL LOAD STOP Rated speed rpm : 225 Rated speed rpm : 350 Rated speed rpm : 350 TORQUE CONTROL	ated speed rpm	: 986	•	
ted speed rpm : 480	uide sleeve	5 55	† Tolerance mm	: ← 0.20
ted speed rpm : 480			†	005
ride sleeve avel mm : 3.00	olerance mm	: +- 0.25	† Rated speed rpm	: 225
ride sleeve avel mm : 3.00		. /60	†	0 00
avel mm : 3.00 + Rated speed rpm : 350 lerance mm : + 0.25 + TORQUE CONTROL LL LOAD DELIVERY AT FULL LOAD STOP		: 480	ל כאו מייח שואט.	: > 8.00
LL LOAD DELIVERY AT FULL LOAD STOP		. 7.00	Dotad aread re-	. 750
TORQUE CONTROL LL LOAD DELIVERY AT FULL LOAD STOP			+ kated speed rpm	. 330
LL LOAD DELIVERY AT FULL LOAD STOP	lerance mm	; *** U.25	I	
LL LOAD DELIVERY AT FULL LOAD STOP			TOROUE CONTROL	
	I I DAD DELTVER	Y AT FULL LOAD STOP	I TONGOL CONTROL	
	TE MOND AFFIAED	CLATIVEE LOAD STOP	Rated speed rpm	: 1500

rack travel mm Tolerance mm	: 13.75 : +- 0.05	+ Spreed + cm3/1000 strokes : 8.0 + Check tolerance
Rated speed rpm rack travel mm Tolerance mm	: 13.40	cm3/1000s. : 12.0
Rated speed rpm rack travel mm Tolerance mm	: 12.40	hPa : - Rated speed rpm : 1500 Del. quantity cm3/1000 strokes : 108.0 cm3/1000 strokes : +- 1.0 Check tolerance
ANEROID/ALTITUDE COMPENSATOR TEST		cm3/1000s. : +- 3.0
SETTING		BREAKAWAY
Rated speed rpm Pressure hPa	: 1500 : 1200	Rack travel in mm : 12.70 Rated speed rpm : 1565 Tolerance 1/min : +- 5
MEASUREMENT Pressure hPa Rated speed rpm	: -	STARTING FUEL DELIVERY
rack travel mm Tolerance mm	: 9.60	Rated speed rpm : 100 rack travel mm : 21.00
Rated speed rpm	: 1500	Tolerance mm : + 0.50 Del. quantity
Pressure hPa rack travel mm Tolerance mm	: 800 : 12.80 : + 0.20	- cm3/1000 strokes : 167.0 - cm3/1000 strokes : +- 20.0 - Check tolerance - cm3/1000s. : +- 25.0
Pressure hPa rack travel mm Tolerance mm	: 410 : 10.50 : +- 0.20	
START CUT-OUT		- LOW IDLE
Rated speed rpm Rated speed rpm	: > 190 : < 240	+ Rated speed rpm : 300 + Del. quantity + cm3/1000 strokes : 28.0 + cm3/1000 strokes : + 3.0
Check speed 1/min Check	: > 80	+ Check tolerance + cm3/1000S. : + 5.0 + Spreed
speed 1/min	: < 250	cm3/1000 strokes : 5.0 Check tolerance
FUEL DELIVERY CHA	ARACTERISTICS	+ cm3/1000s. : 9.0
Aneroid pressure hPa	: 1200 : 1200	† †
Rated speed rpm Del. quantity cm3/1000 strokes cm3/1000 strokes	: 202.0	End of test specification sheet
Check tolerance cm3/1000s.	: +- 6.0	‡

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

Edition

: 24.10.96 Test oil : ISO 4113

Combination No. : 0 402 736 910

Injection pump

Pump designation : PES6P120A720RS7351 EP type number : 0 412 726 922

Governor

Governer design. : RQV450...1100PA1317K

Governer no. : 0 421 815 545

Cust. part No. : 3931948

Customer-spec. information Customer : CDC : 6CTA-A Motor Power KW : 224.0

TEST BENCH REQUIREMENTS

Inlet line : 3.2

Test oil inlet

temp. °C Tolerance °C : +- 2.0

Overflow velve : 2 417 413 093

Inlet press. bar : 2.0
Tolerance bar : + 0.1

Test nozzle holde

: 1 688 901 103 assembly

Opening pressure

: 208.5 bar Tolerance bar : + 1.5

Test Lines : 1 680 750 015

Outside diameter : 6.0

x inside diameter : 3.0 x length mm : 600

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values ____

BEGINNING OF DELIVERY

17.0 Test pressure bar : Tolerance bar : +- 1.0

Prestroke mm : 4.40 Tolerance mm : + 0.05 Check

: +- 0.10 tolerance mm

Rack travel in mm : 10.50 Tolerance mm : + 1.50

Firing order : 1-5-3-6-2-

: 4

: 0-60-120-180-240 Phasing

: -300

Tolerance : +- 0.30

Check

tolerance *NW : +- 0.75

Start of delivery blocking

*NW after s.o.d. : 7.00 : +- 0.50 Tolerance

Check

tolerance *NW : +- 0.75

Barrel no. : 1

BASIC SETTING

Rated speed rpm : 1100

Rack travel in mm : 14.95

Tolerance mm : +- 0.05

CDD//UNIX STPOKES	: 236.5	+ Aneroid pressure + hPa	: 1600
		Del. quantity	
cm3/1000 strokes	: +- 1.0	+ cm3/1000 strokes + cm3/1000 strokes	
Check tolerance		+ Check tolerance	
cm3/1000s.	: +- 4.0	+ cm3/1000s. + Spreed	: +- 4.0
Spreed		- cm3/1000 strokes	
cm3/1000 strokes	: 5.0	+ Check tolerance + cm3/1000s.	
Check tolerance	 	+	. 7.0
cm3/1000s.	: 9.0	<u> </u>	
Rated speed rpm	: 450	CONTROL LEVER	
		control lever	
Rack travel in m		+ position degree	
Tolerance mm Del. quantity	: + 0.20	tolerance degree	: +- 4.0
cm3/1000 strokes	: 32.0	T RATED SPEED	
cm3/1000 strokes	: 3.0	+	
Check tolerance cm3/1000s.		+ rack travel mm	
cm3/1000s.	: +- 5.0	+ Rated speed rpm	
Spreed cm3/1000 strokes		† Toterance 1/min	: +- 15
Check tolerance		rack travel mm	: 8.00
cm3/1000s.		+ Rated speed rpm	
		+ Tolerance 1/min	
(B) SETTING OF IN WITH GOVERNOR	NECTION PUMP	+ rack travel mm + Tolerance mm	: 0.50 : + 0.50
		Rated speed rpm	
GUIDE SLEEVE TRAV	/EL	Rated speed rpm	
Rated speed rpm		Rated speed rpm	
Rated speed rpm guide sleeve	: 450	+	
Rated speed rpm guide sleeve travel mm	: 450 : 1.33	LOW IDLE	
Rated speed rpm guide sleeve	: 450 : 1.33	LOW IDLE	: 1350
Rated speed rpm guide sleeve travel mm Tolerance mm	: 450 : 1.33 : +- 0.20	LOW IDLE control lever position degree	: 1350 : 74.0
Rated speed rpm guide sleeve travel mm Tolerance mm	: 450 : 1.33 : +- 0.20 : 1163	LOW IDLE control lever position degree tolerance degree	: 1350 : 74.0
Rated speed rpm guide sleeve travel mm Tolerance mm	: 450 : 1.33 : +- 0.20 : 1163	LOW IDLE control lever position degree	: 1350 : 74.0
Rated speed rpm guide sleeve travel mm Tolerance mm	: 450 : 1.33 : +- 0.20 : 1163	LOW IDLE control lever position degree tolerance degree Testing:	: 1350 : 74.0 : + 4.0
Rated speed rpm guide sleeve travel mm Tolerance mm Rated speed rpm guide sleeve travel mm Tolerance mm	: 450 : 1.33 : + 0.20 : 1163 : 7.50 : + 0.15	LOW IDLE control lever position degree tolerance degree Testing: Rated speed rpm	: 1350 : 74.0 : ← 4.0 : 450
Rated speed rpm guide sleeve travel mm Tolerance mm Rated speed rpm guide sleeve travel mm Tolerance mm Rated speed rpm guide sleeve travel mm	: 450 : 1.33 : + 0.20 : 1163 : 7.50 : + 0.15 : 860	LOW IDLE control lever position degree tolerance degree Testing: Rated speed rpm	: 1350 : 74.0 : ← 4.0 : 450
Rated speed rpm guide sleeve travel mm Tolerance mm Rated speed rpm guide sleeve travel mm Tolerance mm Rated speed rpm guide sleeve travel mm	: 450 : 1.33 : + 0.20 : 1163 : 7.50 : + 0.15 : 860	LOW IDLE control lever position degree tolerance degree Testing: Rated speed rpm rack travel mm Tolerance mm	: 74.0 : + 4.0 : 450 : 6.75 : + 0.20
Rated speed rpm guide sleeve travel mm Tolerance mm Rated speed rpm guide sleeve travel mm Tolerance mm	: 450 : 1.33 : + 0.20 : 1163 : 7.50 : + 0.15 : 860	LOW IDLE control lever position degree tolerance degree Testing: Rated speed rpm	: 74.0 : + 4.0 : 450 : 6.75 : + 0.20
Rated speed rpm guide sleeve travel mm Tolerance mm Rated speed rpm guide sleeve travel mm Tolerance mm Rated speed rpm guide sleeve travel mm Tolerance mm Rated speed rpm guide sleeve travel mm Tolerance mm	: 450 : 1.33 : + 0.20 : 1163 : 7.50 : + 0.15 : 860 : 4.55 : + 0.25 : 1560	LOW IDLE control lever position degree tolerance degree Testing: Rated speed rpm rack travel mm Tolerance mm	: 1350 : 74.0 : + 4.0 : 450 : 6.75 : + 0.20 : 375
Rated speed rpm guide sleeve travel mm Tolerance mm Rated speed rpm guide sleeve travel mm Tolerance mm Rated speed rpm guide sleeve travel mm Tolerance mm Rated speed rpm guide sleeve travel mm Tolerance mm	: 450 : 1.33 : + 0.20 : 1163 : 7.50 : + 0.15 : 860 : 4.55 : + 0.25 : 1560	LOW IDLE control lever position degree tolerance degree Testing: Rated speed rpm rack travel mm Tolerance mm Rated speed rpm CRT mm min.	: 74.0 : +- 4.0 : +- 4.0 : 450 : 6.75 : +- 0.20 : 375 : > 7.90
Rated speed rpm guide sleeve travel mm Tolerance mm Rated speed rpm guide sleeve travel mm Tolerance mm Rated speed rpm guide sleeve travel mm Tolerance mm Rated speed rpm Guide sleeve travel mm Tolerance mm	: 450 : 1.33 : ← 0.20 : 1163 : 7.50 : ← 0.15 : 860 : 4.55 : ← 0.25 : 1560 : 13.50	LOW IDLE control lever position degree tolerance degree Testing: Rated speed rpm rack travel mm Tolerance mm Rated speed rpm	: 74.0 : +- 4.0 : +- 4.0 : 450 : 6.75 : +- 0.20 : 375 : > 7.90
Rated speed rpm guide sleeve travel mm Tolerance mm Rated speed rpm guide sleeve travel mm Tolerance mm Rated speed rpm guide sleeve travel mm Tolerance mm Rated speed rpm guide sleeve travel mm Tolerance mm Tolerance mm Tolerance mm	: 450 : 1.33 : + 0.20 : 1163 : 7.50 : + 0.15 : 860 : 4.55 : + 0.25 : 1560 : 13.50 : + 0.50	LOW IDLE control lever position degree tolerance degree Testing: Rated speed rpm rack travel mm Tolerance mm Rated speed rpm CRT mm min.	: 74.0 : +- 4.0 : +- 4.0 : 450 : 6.75 : +- 0.20 : 375 : > 7.90
Rated speed rpm guide sleeve travel mm Tolerance mm Rated speed rpm guide sleeve travel mm Tolerance mm Rated speed rpm guide sleeve travel mm Tolerance mm Rated speed rpm guide sleeve travel mm Tolerance mm Rated speed rpm guide sleeve travel mm Tolerance mm Tolerance mm	: 450 : 1.33 : + 0.20 : 1163 : 7.50 : + 0.15 : 860 : 4.55 : + 0.25 : 1560 : 13.50 : + 0.50	LOW IDLE control lever position degree tolerance degree Testing: Rated speed rpm rack travel mm Tolerance mm Rated speed rpm CRT mm min. Rated speed rpm	: 1350 : 74.0 : + 4.0 : 450 : 6.75 : + 0.20 : 375 : > 7.90 : 525 : 1100

Tolerance mm	: 0.05	+ cm3/1000 strokes : 8.0
Detect aread are	. 750	+ Check tolerance
Rated speed rpm rack travel mm		t cm3/1000s. : 12.0
Tolerance mm	: +- 0.10	Aneroid pressure
		-
Rated speed rpm	: 500	+ Rated speed rpm : 1000
rack travel mm	: 13.60	+ Del. quantity
Tolerance mm	: - 0.20	+ cm3/1000 strokes : 183.5 + cm3/1000 strokes : + 1.0
w		- + Check tolerance
ANEROID/ALTITUDE		+ cm3/1000s. : + 3.0
COMPENSATOR TEST		+
		†
SETTING		† BREAKAWAY
SELLTING		I
Rated speed rpm	: 1100	Rack travel in mm: 13.90
Pressure hPa	: 1600	+ Rated speed rpm : 1170
***		† Tolerance 1/min : + 15
MEASUREMENT		1
Pressure hPa	: -	Ţ <u> </u>
Rated speed rpm	1000	+ STARTING FUEL DELIVERY
rack travel mm	: 13.25	+
Tolerance mm	: + 0.20	+ Rated speed rpm : 100
0-4-1	. 1100	rack travel mm : 21.00
Rated speed rpm	: 1100	Tolerance mm : +- 0.50 + Del. quantity
Pressure hPa	: 1190	cm3/1000 strokes : 180.0
rack travel mm	: 14.15	+ cm3/1000 strokes : +- 20.0
Tolerance mm	: ← 0.20	† Check tolerance
	4050	+ cm3/1000s. : + 25.0
Pressure hPa rack travel mm	: 1050	1
Tolerance ma	: + 0.20	I
		- + LOW IDLE
START CUT-OUT		Rated speed rpm : 450
Rated speed rpm	: > 100	Del. quantity
Rated speed rpm		+ cm3/1000 strokes : 32.0
, ,		+ cm3/1000 strokes : +- 3.0
Check		+ Check tolerance
speed 1/min	: > 80	+ cm3/1000s. : + 5.0
Check speed 1/min	: < 400	+ Spreed + cm3/1000 strokes : 8.0
specu i/iiiii	• • • • • • • • • • • • • • • • • • • •	Check tolerance
		- + cm3/1000s. : 12.0
FUEL DELIVERY CHA	RACTERISTICS	†
Amanadal managers		†
Aneroid pressure hPa	: 1600	I
Rated speed rpm	: 750	ļ
Del. quantity		†
cm3/1000 strokes		+ End of test specification shee
cm3/1000 strokes	: ← 3.0	†
Check tolerance cm3/1000s.	: +- 6.0	I
Spreed	. , 0.0	Į
Upi CCG		ı

sheet

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

: 25.10.96 Edition : ISO 4113 Test oil

Combination No. : 0 402 746 612

Injection pump

Pump designation : PES6P120A320RS7372 : 0 412 726 940 EP type number

Governer design. : RQV250...1300PA1282K

: 0 421 815 515 Governer no.

Cust. part No. : 3866784

Customer-spec. information Customer : CDC Motor : 6BTA Power KW : 187.0

TEST BENCH REQUIREMENTS

Inlet line : 3.2

Test oil inlet

temp. °C 40 Tolerance °C : +- 2.0

Overflow valve : 2 417 413 093

Inlet press. bar : 2.0 Tolerance bar : + 0.1

Test nozzle holde

: 1 688 901 103 assembly

Opening pressure

208.5 bar Tolerance bar : +- 1.5

Test lines : 1 680 750 015

Outside diameter : 6.0

x inside diameter : 3.0 x length mm : 600

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values _____

BEGINNING OF DELIVERY

Test pressure bar : 17.0 Tolerance bar : + 1.0

4.00 Prestroke mm : +- 0.05 Tolerance mm Check

tolerance mm

: **←** 0.10

Rack travel in mm : 10.50 : + 1.50 Tolerance mm

Firing order : 1-5-3-6-2-

Phasing : 0-60-120-180-240

: -300 Tolerance : +- 0.30

Check

tolerance 'NW : **←** 0.75

Start of delivery blocking

*NW after s.o.d. : 11.00 Tolerance : +- 0.50

Check

tolerance 'NW : +- 0.75

Barrel no. : 1

BASIC SETTING

Rated speed rpm : 1300

Rack travel in mm : 12.35 Tolerance mm : +- 0.05

Del. quantity cm3/1000 strokes : 155.0	
cm3/1000 strokes : + 1.0	FULL LOAD DELIVERY AT FULL LOAD STOP
Check tolerance cm3/1000s. : + 4.0	Rated speed rpm : 1300 Aneroid pressure hPa : 1200 Del. quantity
Spreed cm3/1000 strokes : 8.0	cm3/1000 strokes : 155.0 cm3/1000 strokes : +- 1.0 Check tolerance
Check tolerance cm3/1000s. : 12.0	cm3/1000s. : +- 4.0 Spreed cm3/1000 strokes : 8.0
Rated speed rpm : 300	Check tolerance cm3/1000s. : 12.0
Rack travel in mm: 7.00 Tolerance mm : +- 0.20	·
Del. quantity + cm3/1000 strokes : 28.0 +	CONTROL LEVER
cm3/1000 strokes : +- 3.0 }	control lever
Check tolerance + 5.0 +	position degree : 114.0 tolerance degree : +- 4.0
Spreed +	_
cm3/1000 strokes : 5.0 + Check tolerance	RATED SPEED
cm3/1000s. : 8.0	rack travel mm : 11.30 Rated speed rpm : 1375
(B) SETTING OF INJECTION PUMP WITH GOVERNOR	Tolerance 1/min : +- 5 rack travel mm : 7.50 Rated speed rpm : 1465 Tolerance 1/min : +- 15
GUIDE SLEEVE TRAVEL	rack travel mm : 0.50
Rated speed rpm : 275 guide sleeve	Tolerance mm : + 0.50 Rated speed rpm : 1650
travel mm : 1.39 + Tolerance mm : + 0.20 +	
Rated speed rpm : 1355 + guide sleeve +	LOW IDLE
travel mm : 8.32	
Tolerance mm : +- 0.15 +-	control lever position degree : 75.0
Rated speed rpm : 885 + guide sleeve +	tolerance degree : +- 4.0
travel mm : 5.46 Tolerance mm : + 0.25	Testing:
+	Rated speed rpm : 300
Rated speed rpm : 480 + guide sleeve	rack travel mm : 7.00 Tolerance mm : +- 0.20
travel mm : 3.18 + Tolerance mm : + 0.25 +	Rated speed rpm : 250
Rated speed rpm : 1860	CRT mm min. : > 8.00
guide sleeve travel mm : 13.50	Rated speed rpm : 450
Tolerance mm : +- 0.50 +	race opeca i più i i i i

TORQUE CONTROL	
Rated speed rpm rack travel mm Tolerance mm	: 1300 : 12.35 : + 0.05
Rated speed rpm rack travel mm Tolerance mm	: 900 : 12.10 : ← 0.10
Rated speed rpm rack travel mm Tolerance mm	: 700 : 12.15 : + 0.10
Rated speed rpm rack travel mm Tolerance mm	: 500 : 11.80 : ← 0.20
ANEROID/ALTITUDE COMPENSATOR TEST	
SETTING	
Rated speed rpm Pressure hPa	: 1300 : 1200
MEASUREMENT	
Pressure hPa Rated speed rpm rack travel mm Tolerance mm	: - : 1000 : 9.90 : +- 0.20
Rated speed rpm	: 1300
Pressure hPa rack travel mm Tolerance mm	: 450 : 11.50 : ← 0.20
Pressure hPa rack travel mm Tolerance mm	: 255 : 10.60 : + 0.20
START CUT-OUT	
Rated speed rpm	: < 250
Check speed 1/min	: < 260
FUEL DELIVERY CHA	RACTERISTICS
Aneroid pressure hPa	: 1200

E07

Rated speed rpm	:		900
Del. quantity cm3/1000 strokes cm3/1000 strokes	:	+-	152.5 3.0
Check tolerance cm3/1000s. Spreed	:	+-	6.0
cm3/1000 strokes	:		8.0
Check tolerance cm3/1000s.	:		12.0
Aneroid pressure			
hPa Rated speed rpm	:	1	- 000
Del. quantity	•	•	1000
cm3/1000 strokes	:		104.0
cm3/1000 strokes Check tolerance	:	_	1.0
cm3/1000s.	:	+-	3.0

BREAKAWAY

Rack travel in mm	:	11.30
Rated speed rpm	:	1375
Tolerance 1/min	:	+- 5

STARTING FUEL DELIVERY

Rated speed rpm	: 100
rack travel mm	: 11.90
Tolerance mm	: +- 0.50
Del. quantity	
cm3/1000 strokes	: 185.0
cm3/1000 strokes	: + 20.0
Check tolerance	
cm3/1000s.	: +- 25.0

LOW IDLE

Rated speed rpm Del. quantity	:		300
cm3/1000 strokes cm3/1000 strokes	:	+	28.0 3.0
Check tolerance cm3/1000s. Spreed	:	+-	5.0
cm3/1000 strokes Check tolerance	:		5.0
cm3/1000s.	:		8.0

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

: 25,10,96 Edition Test oil : ISO 4113

Combination No. : 0 402 746 613

Injection pump

Pump designation : PES6P120A320RS7372 EP type number : 0 412 726 940

Governor

Governer design. : RQV250...1250PA1283K

Governer no. : 0 421 815 516

Cust. part No. : 3866785

Customer-spec. information Customer : CDC Motor : 6BTA Power KW : 164.0

TEST BENCH REQUIREMENTS

Inlet line : 3.2

Test oil inlet

temp. °C Tolerance °C : +- 2.0

Overflow valve : 2 417 413 093

Inlet press. bar : 2.0
Tolerance bar : + 0.1

Test nozzle holde

: 1 688 901 103 assembly

Opening pressure

208.5 Tolerance bar : +- 1.5

Test lines : 1 680 750 015

Outside diameter : 6.0

(A) INJECTION PUMP SETTING VALUES Set equal delivery quant. per values _____

REMARKS

x inside diameter :

x Length mm :

3.0

600

BEGINNING OF DELIVERY

Test pressure bar : 17.0 Tolerance bar : + 1.0

Prestroke mm : 4.00 Tolerance mm : + 0.05 Check

tolerance mm : +- 0.10

Rack travel in mm: 10.50 Tolerance mm : + 1.50

Firing order : 1-5-3-6-2-

Phasing : 0-60-120-180-240

: -300 : **←** 0.30 Tolerance

Check

tolerance *NW : \leftarrow 0.75

Start of delivery blocking

*NW after s.o.d. : 11.00 Tolerance : +- 0.50 Check

: +- 0.75 tolerance *NW

: 1 Barrel no.

BASIC SETTING

Rated speed rpm : 1250

Rack travel in mm: 12.05 Tolerance mm: \leftarrow 0.05

Del. quantity		+
cm3/1000 strokes	: 129.5	
		→ FULL LOAD DELIVERY AT FULL LOAD STOP
cm3/1000 strokes	: +- 1.0	
		Rated speed rpm : 1250
Check tolerance		+ Aneroid pressure
cm3/1000s.	: ← 4.0	hPa : 900
CIAC/ 10000.	• • • • • • • • • • • • • • • • • • • •	Del. quantity
Spreed		- cm3/1000 strokes : 129.5
cm3/1000 strokes	: 8.0	+ cm3/1000 strokes : +- 1.0
CIBO TOOD SET OKES	. 0.0	Check tolerance
Charle tal annua		
Check tolerance	: 12.0	
cm3/1000S.	: 12.0	+ Spreed + cm3/1000 strokes : 8.0
5 And 1 days	. 700	
Rated speed rpm	: 300	Check tolerance
		+ cm3/1000s. : 12.0
	7.40	†
Rack travel in m		†
Tolerance mm	: +- 0.20	
Del. quantity		+ CONTROL LEVER
cm3/1000 strokes		†
cm3/1000 strokes	: +- 3.0	+ control lever
Check tolerance		+ position degree : 114.0
cm3/1000S.	: +- 5.0	tolerance degree : + 4.0
Spreed		+
cm3/1000 strokes	: 5.0	+ RATED SPEED
Check tolerance		+
cm3/1000s.	: 8.0	† rack travel mm : 11.00
		+ Rated speed rpm : 1310
) Talamana Alanda 4
		+ Tolerance 1/min : +- 5
(B) SETTING OF IN	NJECTION PUMP	+
(B) SETTING OF IN	NJECTION PUMP	rack travel mm : 4.00
	NJECTION PUMP	+
	NJECTION PUMP	rack travel mm : 4.00
		rack travel mm : 4.00 Rated speed rpm : 1475
WITH GOVERNOR		rack travel mm : 4.00 Rated speed rpm : 1475
WITH GOVERNOR GUIDE SLEEVE TRAN	/EL	rack travel mm : 4.00 Rated speed rpm : 1475 Tolerance 1/min : + 15
WITH GOVERNOR GUIDE SLEEVE TRAV Rated speed rpm	/EL	rack travel mm : 4.00 Rated speed rpm : 1475 Tolerance 1/min : + 15 rack travel mm : 0.50 Tolerance mm : + 0.50
WITH GOVERNOR GUIDE SLEEVE TRAN	/EL : 275	rack travel mm : 4.00 Rated speed rpm : 1475 Tolerance 1/min : + 15 rack travel mm : 0.50 Tolerance mm : + 0.50
GUIDE SLEEVE TRAV Rated speed rpm guide sleeve travel mm	/EL : 275 : 1.39	rack travel mm : 4.00 Rated speed rpm : 1475 Tolerance 1/min : + 15 rack travel mm : 0.50 Tolerance mm : + 0.50
GUIDE SLEEVE TRAN	/EL : 275	rack travel mm : 4.00 Rated speed rpm : 1475 Tolerance 1/min : + 15 rack travel mm : 0.50 Tolerance mm : + 0.50
WITH GOVERNOR GUIDE SLEEVE TRAV Rated speed rpm guide sleeve travel mm Tolerance mm	/EL : 275 : 1.39 : ← 0.20	rack travel mm : 4.00 Rated speed rpm : 1475 Tolerance 1/min : + 15 rack travel mm : 0.50 Tolerance mm : + 0.50 Rated speed rpm : 1600
WITH GOVERNOR GUIDE SLEEVE TRAV Rated speed rpm guide sleeve travel mm Tolerance mm Rated speed rpm	/EL : 275 : 1.39 : ← 0.20	rack travel mm : 4.00 Rated speed rpm : 1475 Tolerance 1/min : + 15 rack travel mm : 0.50 Tolerance mm : + 0.50
WITH GOVERNOR GUIDE SLEEVE TRAN Rated speed rpm guide sleeve travel mm Tolerance mm Rated speed rpm guide sleeve	/EL : 275 : 1.39 : ← 0.20 : 1305	rack travel mm : 4.00 Rated speed rpm : 1475 Tolerance 1/min : + 15 rack travel mm : 0.50 Tolerance mm : + 0.50 Rated speed rpm : 1600
WITH GOVERNOR GUIDE SLEEVE TRAN Rated speed rpm guide sleeve travel mm Tolerance mm Rated speed rpm guide sleeve travel mm	/EL : 275 : 1.39 : ← 0.20 : 1305 : 7.93	rack travel mm : 4.00 Rated speed rpm : 1475 Tolerance 1/min : + 15 rack travel mm : 0.50 Tolerance mm : + 0.50 Rated speed rpm : 1600 LOW IDLE
WITH GOVERNOR GUIDE SLEEVE TRAN Rated speed rpm guide sleeve travel mm Tolerance mm Rated speed rpm guide sleeve	/EL : 275 : 1.39 : ← 0.20 : 1305	rack travel mm : 4.00 Rated speed rpm : 1475 Tolerance 1/min : + 15 rack travel mm : 0.50 Tolerance mm : + 0.50 Rated speed rpm : 1600 LOW IDLE control lever
GUIDE SLEEVE TRAN Rated speed rpm guide sleeve travel mm Tolerance mm Rated speed rpm guide sleeve travel mm Tolerance mm	/EL : 275 : 1.39 : ← 0.20 : 1305 : 7.93 : ← 0.15	rack travel mm : 4.00 Rated speed rpm : 1475 Tolerance 1/min : + 15 rack travel mm : 0.50 Tolerance mm : + 0.50 Rated speed rpm : 1600 LOW IDLE control lever position degree : 76.0
WITH GOVERNOR GUIDE SLEEVE TRAN Rated speed rpm guide sleeve travel mm Tolerance mm Rated speed rpm guide sleeve travel mm Tolerance mm Rated speed rpm Rated speed rpm	/EL : 275 : 1.39 : ← 0.20 : 1305 : 7.93	rack travel mm : 4.00 Rated speed rpm : 1475 Tolerance 1/min : + 15 rack travel mm : 0.50 Tolerance mm : + 0.50 Rated speed rpm : 1600 LOW IDLE control lever
GUIDE SLEEVE TRAN Rated speed rpm guide sleeve travel mm Tolerance mm Rated speed rpm guide sleeve travel mm Tolerance mm Rated speed rpm guide sleeve travel mm Tolerance mm	/EL : 275 : 1.39 : ← 0.20 : 1305 : 7.93 : ← 0.15 : 864	rack travel mm : 4.00 Rated speed rpm : 1475 Tolerance 1/min : + 15 rack travel mm : 0.50 Tolerance mm : + 0.50 Rated speed rpm : 1600 LOW IDLE control lever position degree : 76.0 tolerance degree : + 4.0
WITH GOVERNOR GUIDE SLEEVE TRAN Rated speed rpm guide sleeve travel mm Tolerance mm Rated speed rpm guide sleeve travel mm Tolerance mm Rated speed rpm guide sleeve travel mm Tolerance mm	/EL : 275 : 1.39 : + 0.20 : 1305 : 7.93 : + 0.15 : 864 : 5.36	rack travel mm : 4.00 Rated speed rpm : 1475 Tolerance 1/min : + 15 rack travel mm : 0.50 Tolerance mm : + 0.50 Rated speed rpm : 1600 LOW IDLE control lever position degree : 76.0
GUIDE SLEEVE TRAN Rated speed rpm guide sleeve travel mm Tolerance mm Rated speed rpm guide sleeve travel mm Tolerance mm Rated speed rpm guide sleeve travel mm Tolerance mm	/EL : 275 : 1.39 : ← 0.20 : 1305 : 7.93 : ← 0.15 : 864	rack travel mm : 4.00 Rated speed rpm : 1475 Tolerance 1/min : + 15 rack travel mm : 0.50 Tolerance mm : + 0.50 Rated speed rpm : 1600 LOW IDLE control lever position degree : 76.0 tolerance degree : + 4.0 Testing:
WITH GOVERNOR GUIDE SLEEVE TRAN Rated speed rpm guide sleeve travel mm Tolerance mm Rated speed rpm guide sleeve travel mm Tolerance mm Rated speed rpm guide sleeve travel mm Tolerance mm Tolerance mm	/EL : 275 : 1.39 : + 0.20 : 1305 : 7.93 : + 0.15 : 864 : 5.36 : + 0.25	rack travel mm : 4.00 Rated speed rpm : 1475 Tolerance 1/min : + 15 rack travel mm : 0.50 Tolerance mm : + 0.50 Rated speed rpm : 1600 LOW IDLE control lever position degree : 76.0 tolerance degree : + 4.0 Testing: Rated speed rpm : 300
WITH GOVERNOR GUIDE SLEEVE TRAN Rated speed rpm guide sleeve travel mm Tolerance mm Rated speed rpm guide sleeve travel mm Tolerance mm Rated speed rpm guide sleeve travel mm Tolerance mm Rated speed rpm guide sleeve travel mm Tolerance mm	/EL : 275 : 1.39 : + 0.20 : 1305 : 7.93 : + 0.15 : 864 : 5.36	rack travel mm : 4.00 Rated speed rpm : 1475 Tolerance 1/min : + 15 rack travel mm : 0.50 Tolerance mm : + 0.50 Rated speed rpm : 1600 LOW IDLE control lever position degree : 76.0 tolerance degree : + 4.0 Testing: Rated speed rpm : 300 rack travel mm : 7.40
GUIDE SLEEVE TRAN Rated speed rpm guide sleeve travel mm Tolerance mm Rated speed rpm guide sleeve travel mm Tolerance mm Rated speed rpm guide sleeve travel mm Tolerance mm Rated speed rpm guide sleeve travel mm Tolerance mm	/EL : 275 : 1.39 : + 0.20 : 1305 : 7.93 : + 0.15 : 864 : 5.36 : + 0.25 : 480	rack travel mm : 4.00 Rated speed rpm : 1475 Tolerance 1/min : + 15 rack travel mm : 0.50 Tolerance mm : + 0.50 Rated speed rpm : 1600 LOW IDLE control lever position degree : 76.0 tolerance degree : + 4.0 Testing: Rated speed rpm : 300
GUIDE SLEEVE TRAN Rated speed rpm guide sleeve travel mm Tolerance mm Rated speed rpm guide sleeve travel mm Tolerance mm Rated speed rpm guide sleeve travel mm Tolerance mm Rated speed rpm guide sleeve travel mm Tolerance mm	/EL : 275 : 1.39 : ← 0.20 : 1305 : 7.93 : ← 0.15 : 864 : 5.36 : ← 0.25 : 480 : 3.18	rack travel mm : 4.00 Rated speed rpm : 1475 Tolerance 1/min : + 15 rack travel mm : 0.50 Tolerance mm : + 0.50 Rated speed rpm : 1600 LOW IDLE control lever position degree : 76.0 tolerance degree : + 4.0 Testing: Rated speed rpm : 300 rack travel mm : 7.40 Tolerance mm : + 0.20
GUIDE SLEEVE TRAN Rated speed rpm guide sleeve travel mm Tolerance mm Rated speed rpm guide sleeve travel mm Tolerance mm Rated speed rpm guide sleeve travel mm Tolerance mm Rated speed rpm guide sleeve travel mm Tolerance mm	/EL : 275 : 1.39 : + 0.20 : 1305 : 7.93 : + 0.15 : 864 : 5.36 : + 0.25 : 480	rack travel mm : 4.00 Rated speed rpm : 1475 Tolerance 1/min : + 15 rack travel mm : 0.50 Tolerance mm : + 0.50 Rated speed rpm : 1600 LOW IDLE control lever position degree : 76.0 tolerance degree : + 4.0 Testing: Rated speed rpm : 300 rack travel mm : 7.40
GUIDE SLEEVE TRAN Rated speed rpm guide sleeve travel mm Tolerance mm Rated speed rpm guide sleeve travel mm Tolerance mm Rated speed rpm guide sleeve travel mm Tolerance mm Rated speed rpm guide sleeve travel mm Tolerance mm Rated speed rpm guide sleeve travel mm Tolerance mm	/EL : 275 : 1.39 : ← 0.20 : 1305 : 7.93 : ← 0.15 : 864 : 5.36 : ← 0.25 : 480 : 3.18 : ← 0.25	rack travel mm : 4.00 Rated speed rpm : 1475 Tolerance 1/min : + 15 rack travel mm : 0.50 Tolerance mm : + 0.50 Rated speed rpm : 1600 LOW IDLE control lever position degree : 76.0 tolerance degree : + 4.0 Testing: Rated speed rpm : 300 rack travel mm : 7.40 Tolerance mm : + 0.20 Rated speed rpm : 275
GUIDE SLEEVE TRAN Rated speed rpm guide sleeve travel mm Tolerance mm Rated speed rpm guide sleeve travel mm Tolerance mm Rated speed rpm guide sleeve travel mm Tolerance mm Rated speed rpm guide sleeve travel mm Tolerance mm Rated speed rpm guide sleeve travel mm Tolerance mm Rated speed rpm guide sleeve travel mm Tolerance mm	/EL : 275 : 1.39 : ← 0.20 : 1305 : 7.93 : ← 0.15 : 864 : 5.36 : ← 0.25 : 480 : 3.18 : ← 0.25	rack travel mm : 4.00 Rated speed rpm : 1475 Tolerance 1/min : + 15 rack travel mm : 0.50 Tolerance mm : + 0.50 Rated speed rpm : 1600 LOW IDLE control lever position degree : 76.0 tolerance degree : + 4.0 Testing: Rated speed rpm : 300 rack travel mm : 7.40 Tolerance mm : + 0.20
GUIDE SLEEVE TRAN Rated speed rpm guide sleeve travel mm Tolerance mm Rated speed rpm guide sleeve travel mm Tolerance mm Rated speed rpm guide sleeve travel mm Tolerance mm Rated speed rpm guide sleeve travel mm Tolerance mm Rated speed rpm guide sleeve travel mm Tolerance mm Rated speed rpm guide sleeve travel mm Tolerance mm	/EL : 275 : 1.39 : ← 0.20 : 1305 : 7.93 : ← 0.15 : 864 : 5.36 : ← 0.25 : 480 : 3.18 : ← 0.25 : 1860	rack travel mm : 4.00 Rated speed rpm : 1475 Tolerance 1/min : + 15 rack travel mm : 0.50 Tolerance mm : + 0.50 Rated speed rpm : 1600 LOW IDLE control lever position degree : 76.0 tolerance degree : + 4.0 Testing: Rated speed rpm : 300 rack travel mm : 7.40 Tolerance mm : + 0.20 Rated speed rpm : 275 CRT mm min. : > 8.20
GUIDE SLEEVE TRAN Rated speed rpm guide sleeve travel mm Tolerance mm Rated speed rpm guide sleeve travel mm Tolerance mm Rated speed rpm guide sleeve travel mm Tolerance mm Rated speed rpm guide sleeve travel mm Tolerance mm Rated speed rpm guide sleeve travel mm Tolerance mm Rated speed rpm guide sleeve travel mm Tolerance mm	/EL : 275 : 1.39 : ← 0.20 : 1305 : 7.93 : ← 0.15 : 864 : 5.36 : ← 0.25 : 480 : 3.18 : ← 0.25	rack travel mm : 4.00 Rated speed rpm : 1475 Tolerance 1/min : + 15 rack travel mm : 0.50 Tolerance mm : + 0.50 Rated speed rpm : 1600 LOW IDLE control lever position degree : 76.0 tolerance degree : + 4.0 Testing: Rated speed rpm : 300 rack travel mm : 7.40 Tolerance mm : + 0.20 Rated speed rpm : 275

		+
TORQUE CONTROL Rated speed rpm rack travel mm Tolerance mm	: 1250 : 12.05 : + 0.05	Aneroid pressure hPa : 900 Rated speed rpm : 900 Del. quantity cm3/1000 strokes : 132.0 cm3/1000 strokes : +- 3.0 Check tolerance
Rated speed rpm rack travel mm Tolerance mm		cm3/1000s. : +- 6.0 Spreed - cm3/1000 strokes : 8.0 Check tolerance
Rated speed rpm rack travel mm Tolerance mm		- cm3/1000s. : 12.0 - Aneroid pressure - hPa : -
Rated speed rpm rack travel mm Tolerance mm ANEROID/ALTITUDE	: 11.40	Rated speed rpm : 1000 Del. quantity cm3/1000 strokes : 93.5 cm3/1000 strokes : +- 1.0 Check tolerance cm3/1000s. : +- 3.0
COMPENSATOR TEST		+
SETTING		+ BREAKAWAY
Rated speed rpm Pressure hPa	: 1250 : 900	Rack travel in mm : 11.00 Rated speed rpm : 1310 Tolerance 1/min : +- 5
MEASUREMENT		‡
Pressure hPa Rated speed rpm rack travel mm Tolerance mm		STARTING FUEL DELIVERY Rated speed rpm : 100 rack travel mm : 21.00
Rated speed rpm	: 1250	+ rack travel mm : 21.00 + Tolerance mm : + 0.50 + Del. quantity
Pressure hPa rack travel mm Tolerance mm	: 550 : 11.10 : +- 0.20	cm3/1000 strokes : 185.0 cm3/1000 strokes : + 20.0 Check tolerance cm3/1000s. : + 25.0
Pressure hPa rack travel mm Tolerance mm	: 265 : 10.30 : + 0.20	
START CUT-OUT		LOW IDLE
Rated speed rpm Rated speed rpm	: > 100 : < 250	Rated speed rpm : 300 Del. quantity cm3/1000 strokes : 23.0 cm3/1000 strokes : +- 3.0
Check speed 1/min	: > 80	Check tolerance cm3/1000s. : +- 5.0
Check speed 1/min	: < 260	Spreed cm3/1000 strokes : 5.0 Check tolerance
FUEL DELIVERY CHA	RACTERISTICS	

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

Edition : 02.09.96 Test oil : ISO 4113

Combination No. : 0 401 849 759

Injection pump

Pump designation : PE10P120A520/4LS3866

EP type number : 0 411 829 712

Governor

Governer design. : RQ300/1150PA1322 Governer no. : 0 421 801 814

Cust. part No. :

Customer-spec. information

Customer : DHI : D2840L Motor

Power KW : 382.0

TEST BENCH REQUIREMENTS

Inlet line : 3.1

Test oil inlet

40 temp. °C ÷ + 2.0 Tolerance °C

Overflow valve : 1 417 413 047

Inlet press. bar : 2.5
Tolerance bar : + 0.1

Overflow quantity

min. L/h : 100 Tolerance L/h : + 10.0

Test nozzle holde

: 1 688 901 105 assembly

Opening pressure

: 208.5 bar Tolerance bar : + 1.5 Test lines : 1 680 750 089

Outside diameter : 8.0

x inside diameter : 3.0 600

x length mm :

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values _____

BEGINNING OF DELIVERY

Test pressure bar : 26.0 Tolerance bar : + 1.0

Prestroke mm : 4.30 Tolerance mm : +- 0.05

Check

tolerance mm : \leftarrow 0.10

Rack travel in mm: 10.50

Tolerance mm : + 1.50

: 10-9-4-1-8 Firing order : - 7- 6- 3- 5 : - 2

Phasing : 0-45-72-117-144

: -189-216-261-288

: -333

: +- 0.30 Tolerance

Check

tolerance *NW : +- 0.50

Start of delivery mark

Tolerance : \leftarrow 0.10

Check

tolerance °NW : + 0.75

Barrel no. : 10

BASIC SETTING

Rated speed rpm : 1150

Rack travel in mm Tolerance mm	: 12.00 : + 0.05	Rated speed rpm : 490 guide sleeve travel mm : 6.00 Tolerance mm : +- 0.10
Del. quantity cm3/1000 strokes	: 192.0	Rated speed rpm : 1450 guide sleeve
cm3/1000 strokes	: +- 1.0	
Check tolerance cm3/1000s.	: + 4.0	GUIDE SLEEVE POSITION
Spreed cm3/1000 strokes	: 7.0	Rated speed rpm : 1297
Check tolerance cm3/1000s.	: 10.0	Rack travel in mm : 10.98 Tolerance mm : +- 0.80
Rated speed rpm	: 300	FULL LOAD DELIVERY AT FULL LOAD STOP
Rack travel in mm Tolerance mm Del. quantity cm3/1000 strokes cm3/1000 strokes Check tolerance cm3/1000s. Spreed cm3/1000 strokes Check tolerance cm3/1000s.	: + 0.10 : 20.0 : + 3.0 : + 6.0	Rated speed rpm : 1150 Aneroid pressure hPa : - Del. quantity cm3/1000 strokes : 192.0 cm3/1000 strokes : +- 1.0 Check tolerance cm3/1000s. : +- 4.0 Spreed cm3/1000 strokes : 7.0 Check tolerance
(B) SETTING OF IN.		cm3/1000s. : 10.0
GUIDE SLEEVE TRAV		- CONTROL LEVER - control lever
Rated speed rpm guide sleeve travel mm Tolerance mm	: 300 : 2.11	position degree : 31.0 tolerance degree : +- 4.0 control lever position degree : 93.0
Rated speed rpm guide sleeve travel mm Tolerance mm	: 1222 : 6.37 : + 0.10	tolerance degree : +- 4.0 RATED SPEED rack travel mm : 11.00
Rated speed rpm guide sleeve	: 1150	Rated speed rpm : 1217 Tolerance 1/min : + 5
travel mm Tolerance mm		rack travel mm : 4.00 Rated speed rpm : 1330 Tolerance 1/min : +- 15
Rated speed rpm guide sleeve travel mm Tolerance mm	: 5.00	rack travel mm : 0.50 Tolerance mm : +- 0.50 Rated speed rpm : 1450

LOW IDLE

control lever

position degree : 76.0 tolerance degree : + 4.0

control lever

position degree : 14.0 tolerance degree : + 4.0

Testing:

Rated speed rpm : 300 rack travel mm 6.90 : +- 0.10Tolerance mm

rack travel mm 2.00 Rated speed rpm : 411 Tolerance 1/min : +-20

Rated speed rpm 200

CRT mm min. : > 9.36

TORQUE CONTROL

Rated speed rpm : 1150 rack travel mm : 12.00 : +- 0.05 Tolerance mm

Rated speed rpm : 650 rack travel mm : 12.00 : +- 0.10 Tolerance mm

ANEROID/ALTITUDE COMPENSATOR TEST

SETTING

500 Rated speed rpm : Pressure hPa 1500 12.00 rack travel mm : +- 0.05 Tolerance mm

MEASUREMENT

Pressure hPa Rated speed rpm 500 : rack travel mm 10.25 Tolerance mm : **←** 0.20

500 Rated speed rpm :

Pressure hPa : 520 rack travel mm : 11.55 : +- 0.20 Tolerance mm

Pressure hPa 400 10.75 400 : rack travel mm Tolerance mm : +- 0.05

START CUT-OUT

Rated speed rpm : > 100 250 Rated speed rpm : <

Check

speed 1/min 80 : > Check

speed 1/min : < 270

FUEL DELIVERY CHARACTERISTICS

Aneroid pressure

Rated speed rpm : 650 Del. quantity

cm3/1000 strokes : 204.0 cm3/1000 strokes : +- 3.0

Check tolerance

cm3/1000S.

Aneroid pressure

500 Rated speed rpm : Del. quantity

cm3/1000 strokes : 144.0

cm3/1000 strokes : +- 1.0 Check tolerance

cm3/1000s. : +- 4.0

BREAKAWAY

Rack travel in mm : 11.00 Rated speed rpm : 1217 Tolerance 1/min : +- 5

STARTING FUEL DELIVERY

Rated speed rpm : 100 Del. quantity cm3/1000 strokes :

210.0 cm3/1000 strokes : +- 10.0

Check tolerance cm3/1000s. : + 14.0

LOW IDLE

Rated speed rpm : 300

Del. quantity

cm3/1000 strokes : 20.0

cm3/1000 strokes : +- 3.0

Check tolerance

cm3/1000s. : +- 6.0

Spreed

cm3/1000 strokes : 6.0

Check tolerance

cm3/1000s. : 9.0

Note remarks

Refer to Service Info for test and adjustment instructions.
See microcard(s) W400/...

Edition : 18.10.96 Test oil : ISO 4113

Combination No. : 0 402 046 855

Injection pump

Pump designation : PES6P110A320RS3329 EP type number : 0 412 016 743

Governor

Governer design. : RQV325...1300PA1119

Governer no. : 0 421 814 083

Cust. part No. : 1284418/4

Customer—spec. information Customer : DAF Motor : NS156M Power KW : 156.0

TEST BENCH REQUIREMENTS

Inlet line : 3.2

Test oil inlet

temp. *C : 40 Tolerance *C : + 2.0

Overflow valve : 1 417 413 025

Inlet press. bar : 1.5 Tolerance bar : + 0.1

Test nozzle holde

assembly : 1 688 901 101

Opening pressure

bar : 208.5 Tolerance bar : + 1.5

Test Lines : 1 680 750 008

Outside diameter : 6.0

x inside diameter: 2.0 x length mm : 600

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values _____

BEGINNING OF DELIVERY

Test pressure bar : 26.0 Tolerance bar : + 1.0

Prestroke mm : 4.85
Tolerance mm : + 0.05
Check

tolerance mm : + 0.10

Rack travel in mm : 20.50 Tolerance mm : + 0.50

Firing order : 1-5-3-6-2-

: 4

Phasing : 0-60-120-180-240

: -300

Tolerance : \leftarrow 0.30

Check

tolerance $^{\circ}NW$: \leftarrow 0.50

Start of delivery mark

Tolerance : +- 0.10 Check tolerance *NW : +- 0.75

Barrel no. : 1

BASIC SETTING

Rated speed rpm : 1000

Rack travel in mm : 11.85
Tolerance mm : + 0.05

Del. quantity

cm3/1000 strokes : 144.0

	•	• •
7.46000 : 1	+	guide sleeve
cm3/1000 strokes	: + 1.0	travel mm : 2.93 Tolerance mm : +- 0.25
Check tolerance	+	
cm3/1000s.	: +- 4.0	Rated speed rpm : 1640
0		guide sleeve travel mm : 11.50
Spreed		travel mm : 11.50
cm3/1000 strokes	÷ 4.0 †	Tolerance mm : - 0.50
Chark talamana		
Check tolerance cm3/1000s.	. 75 T	GUIDE SLEEVE POSITION
CILOT TOOOS.	· '	GOIDE SEELVE FOSITION
Rated speed rpm	· 325	Rated speed rpm : 1450
Marca opeca i piii	1	Mateu opeca i piii . Tiso
	1	Rack travel in mm : 10.80
Rack travel in mm	: 4.50	Tolerance mm : + 1.30
Tolerance mm		
Del. quantity	-	
cm3/1000 strokes		FULL LOAD DELIVERY AT FULL LOAD STOP
cm3/1000 strokes	: +	
Check tolerance	+	Rated speed rpm : 1000
cm3/1000s.	: +- 5.0 +	Aneroid pressure
Spreed	t	hPa : 1000
cm3/1000 strokes		Del. quantity
Check tolerance	: 15.0	cm3/1000 strokes : 144.0 cm3/1000 strokes : +- 1.0
cm3/1000s.	: 15.0	Check tolerance
	Ť	cm3/1000s. : + 4.0
(B) SETTING OF INJ	IECTION DIMO	Spreed 4.0
WITH GOVERNOR	I I	cm3/1000 strokes : 4.0
WITH GOVERNOR	<u> </u>	Check tolerance
		cm3/1000s. : 7.5
GUIDE SLEEVE TRAVE	:L +	
Rated speed rpm	. 325	
guide sleeve	· 323	CONTROL LEVER
travel mm	: 1.33	CONTINUE EEVEN
Tolerance mm	: ← 0.15	control lever
, 0 (0, 4, 100 , 1, 11)	<u> </u>	position degree : 122.0
Rated speed rpm	: 1353	tolerance degree : +- 4.0
guide sleeve	+	_
travel mm	: 8.29	DATEN CHEEN
Tolerance mm		RATED SPEED
roterance min	: + 0.20 +	
	+	rack travel mm : 10.85
Rated speed rpm	: +- 0.20 : 900	rack travel mm : 10.85 Rated speed rpm : 1342
Rated speed rpm guide sleeve	: 900	rack travel mm : 10.85
Rated speed rpm guide sleeve travel mm	: 900 : 4.92	rack travel mm : 10.85 Rated speed rpm : 1342 Tolerance 1/min : +- 5
Rated speed rpm guide sleeve travel mm	: 900	rack travel mm : 10.85 Rated speed rpm : 1342 Tolerance 1/min : + 5 rack travel mm : 4.00
Rated speed rpm guide sleeve travel mm Tolerance mm	: 900 : 4.92 : + 0.25	rack travel mm : 10.85 Rated speed rpm : 1342 Tolerance 1/min : + 5 rack travel mm : 4.00 Rated speed rpm : 1460
Rated speed rpm guide sleeve travel mm Tolerance mm	: 900 : 4.92	rack travel mm : 10.85 Rated speed rpm : 1342 Tolerance 1/min : + 5 rack travel mm : 4.00
Rated speed rpm guide sleeve travel mm Tolerance mm Rated speed rpm guide sleeve	: 900 : 4.92 : + 0.25 : 405	rack travel mm : 10.85 Rated speed rpm : 1342 Tolerance 1/min : + 5 rack travel mm : 4.00 Rated speed rpm : 1460 Tolerance 1/min : + 15
Rated speed rpm guide sleeve travel mm Tolerance mm Rated speed rpm guide sleeve travel mm	: 900 : 4.92 : + 0.25 : 405 : 2.07	rack travel mm : 10.85 Rated speed rpm : 1342 Tolerance 1/min : + 5 rack travel mm : 4.00 Rated speed rpm : 1460 Tolerance 1/min : + 15 rack travel mm : 0.50
Rated speed rpm guide sleeve travel mm Tolerance mm Rated speed rpm guide sleeve	: 900 : 4.92 : + 0.25 : 405	rack travel mm : 10.85 Rated speed rpm : 1342 Tolerance 1/min : + 5 rack travel mm : 4.00 Rated speed rpm : 1460 Tolerance 1/min : + 15
Rated speed rpm guide sleeve travel mm Tolerance mm Rated speed rpm guide sleeve travel mm Tolerance mm	: 900 : 4.92 : + 0.25 : 405 : 2.07	rack travel mm : 10.85 Rated speed rpm : 1342 Tolerance 1/min : + 5 rack travel mm : 4.00 Rated speed rpm : 1460 Tolerance 1/min : + 15 rack travel mm : 0.50 Tolerance mm : + 0.50
Rated speed rpm guide sleeve travel mm Tolerance mm Rated speed rpm guide sleeve travel mm Tolerance mm Rated speed rpm guide sleeve	: 900 : 4.92 : + 0.25 : 405 : 2.07 : + 0.25 : 455	rack travel mm : 10.85 Rated speed rpm : 1342 Tolerance 1/min : + 5 rack travel mm : 4.00 Rated speed rpm : 1460 Tolerance 1/min : + 15 rack travel mm : 0.50 Tolerance mm : + 0.50
Rated speed rpm guide sleeve travel mm Tolerance mm Rated speed rpm guide sleeve travel mm Tolerance mm Rated speed rpm guide sleeve travel mm	: 900 : 4.92 : + 0.25 : 405 : 2.07 : + 0.25 : 455 : 2.52	rack travel mm : 10.85 Rated speed rpm : 1342 Tolerance 1/min : + 5 rack travel mm : 4.00 Rated speed rpm : 1460 Tolerance 1/min : + 15 rack travel mm : 0.50 Tolerance mm : + 0.50 Rated speed rpm : 1600
Rated speed rpm guide sleeve travel mm Tolerance mm Rated speed rpm guide sleeve travel mm Tolerance mm Rated speed rpm guide sleeve travel mm	: 900 : 4.92 : + 0.25 : 405 : 2.07 : + 0.25 : 455	rack travel mm : 10.85 Rated speed rpm : 1342 Tolerance 1/min : + 5 rack travel mm : 4.00 Rated speed rpm : 1460 Tolerance 1/min : + 15 rack travel mm : 0.50 Tolerance mm : + 0.50
Rated speed rpm guide sleeve travel mm Tolerance mm Rated speed rpm guide sleeve travel mm Tolerance mm Rated speed rpm guide sleeve travel mm Tolerance mm Tolerance mm	: 900 : 4.92 : + 0.25 : 405 : 2.07 : + 0.25 : 455 : 2.52 : + 0.25	rack travel mm : 10.85 Rated speed rpm : 1342 Tolerance 1/min : + 5 rack travel mm : 4.00 Rated speed rpm : 1460 Tolerance 1/min : + 15 rack travel mm : 0.50 Tolerance mm : + 0.50 Rated speed rpm : 1600
Rated speed rpm guide sleeve travel mm Tolerance mm Rated speed rpm guide sleeve travel mm Tolerance mm Rated speed rpm guide sleeve travel mm Tolerance mm Tolerance mm	: 900 : 4.92 : + 0.25 : 405 : 2.07 : + 0.25 : 455 : 2.52	rack travel mm : 10.85 Rated speed rpm : 1342 Tolerance 1/min : + 5 rack travel mm : 4.00 Rated speed rpm : 1460 Tolerance 1/min : + 15 rack travel mm : 0.50 Tolerance mm : + 0.50 Rated speed rpm : 1600

control lever position degree tolerance degree Testing:	: 83.0 : +- 4.0
resemge	
Rated speed rpm rack travel mm Tolerance mm	: 325 : 4.50 : ← 0.10
Rated speed rpm	: 225
CRT mm min.	: > 6.00
Rated speed rpm	: 375
TORQUE CONTROL	
Rated speed rpm	: 1000
rack travel mm	: 11.85
Tolerance mm	: + 0.05
Rated speed rpm	: 700
rack travel mm	
Tolerance mm	: 11.85 : + 0.05
Rated speed rpm	: 1300
rack travel mm	: 11.85
Tolerance mm	: ← 0.05
ANEROID/ALTITUDE COMPENSATOR TEST	
SETTING	
Rated speed rpm	: 600
Pressure hPa	: 1000
rack travel mm Tolerance mm	: 11.85 : +- 0.05
MEASUREMENT	0.05
Pressure hPa Rated speed rpm	: - 600
rack travel mm	: 600 : 7.35
Tolerance mm	: +- 0.20
Rated speed rpm	: 600
Pressure hPa	: 370
rack travel mm	: 10.75
Tolerance mm	: +- 0.05
Pressure hPa	: 200
rack travel mm	: 8.40
Tolerance mm	: +- 0.10
rocer arice in	

FUEL DELIVERY CHA	RACTERISTICS
Aneroid pressure hPa Rated speed rpm Del. quantity cm3/1000 strokes cm3/1000 strokes Check tolerance cm3/1000s.	: 1000 : 700 : 145.0 : + 2.0 : + 5.0
Aneroid pressure hPa Rated speed rpm Del. quantity cm3/1000 strokes cm3/1000 strokes Check tolerance cm3/1000s.	: - : 1000 : 94.0 : + 1.0 : + 3.5
BREAKAWAY	
Rack travel in mm Rated speed rpm Tolerance 1/min	: 10.85 : 1342 : +- 5
LOW IDLE	
Rated speed rpm Del. quantity cm3/1000 strokes cm3/1000 strokes	: 325 : 26.0 : + 2.5

End of test specification sheet

Check tolerance cm3/1000s. : +- 5.0

cm3/1000 strokes : 12.0 Check tolerance cm3/1000s. : 15.0

Spreed

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

Edition : 21.10.96 Test oil : ISO 4113

Combination No. : 0 402 646 744

Injection pump

Pump designation : PE6P120A320LS7872 EP type number : 0 412 626 912

Governor

Governer design. : RQV300...1050PA1259

Governer no. : 0 421 814 169

Cust. part No. : 04221532 KY 0165-17

Customer-spec. information

Customer : KHD

: BF6M1015C

Motor

: 270.0 Power KW

TEST BENCH REQUIREMENTS

Inlet line : 3.2

Test oil inlet

temp. °C Tolerance °C : + 2.0

Overflow valve : 1 417 413 047

Inlet press. bar : 2.0 Tolerance bar : ← 0.1

Overflow quantity

min. l/h : 195
Tolerance l/h : + 10.0

Test nozzle holde

: 1 688 901 105 assembly

Opening pressure

bar : 208.5 Tolerance bar : + 1.5

Test lines : 1 680 750 075

Outside diameter : 8.0

x inside diameter : x length mm : 1000

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values _____

BEGINNING OF DELIVERY

Test pressure bar : 26.0 Tolerance bar : + 1.0

Prestroke mm : 4.05 Tolerance mm : +- 0.05

Check

tolerance mm : **←** 0.10

Rack travel in mm: 10.50

: **←** 1.50 Tolerance mm

Firing order : 1-6-3-5-2-

: 4

Phasing : 0-60-120-180-240

: -300

: +- 0.30 Tolerance

Check

tolerance *NW : +- 0.50

Start of delivery mark

Barrel no. : 1

BASIC SETTING

Rated speed rpm : 1000

Rack travel in mm: 13.45 Tolerance mm : +- 0.05

Del. quantity

cm3/1000 strokes : 335.0

cm3/1000 strokes	: + 1.0	+ guide sleeve
	, ,,,,	+ travel mm : 13.50
Check tolerance		+ Tolerance mm : + 0.50
cm3/1000s.	; +- 4.0	T local differential 0.50
CHO TOOOS.	. +- 4.0	T
Omer and		CHINE CLEENE DOCUTION
Spreed	4.5	+ GUIDE SLEEVE POSITION
cm3/1000 strokes	: 6.0	†
		+ Rated speed rpm : 1130
Check tolerance		+
cm3/1000s.	: 9.0	+ Rack travel in mm : 12.70
		+ Tolerance mm : + 1.30
Rated speed rpm	: 300	+
		
		FULL LOAD DELIVERY AT FULL LOAD STOP
Rack travel in mm	n: 4.60	+
Tolerance mm		Rated speed rpm : 1000
Del. quantity		+ Aneroid pressure
cm3/1000 strokes	: 23.0	+ hPa : 1700
cm3/1000 strokes		Del. quantity
Check tolerance	5.0	+ cm3/1000 strokes : 335.0
	40	- cm3/1000 strokes : + 1.0
cm3/1000s.	: +- 0.0	
Spreed	2.0	+ Check tolerance
cm3/1000 strokes	: 8.0	+ cm3/1000s. : + 4.0
Check tolerance	40.0	+ Spreed
cm3/1000S.	: 12.0	+ cm3/1000 strokes : 6.0
		+ Check tolerance
		+ cm3/1000s. : 9.0
(B) SETTING OF IN	NJECTION PUMP	+
WITH GOVERNOR		+
		+
		+ CONTROL LEVER
GUIDE SLEEVE TRAV	/EL	+
_		control lever
Rated speed rpm	: 300	position degree : 122.0
guide sleeve		tolerance degree : + 4.0
travel mm	: 1.24	
Tolerance mm	: +- 0.20	RATED SPEED
7000 0100 11111	3123	
Rated speed rpm	: 1098	rack travel mm : 12.40
guide steeve	. 1070	Rated speed rpm : 1085
	: 10.02	Tolerance 1/min : + 5
travel mm	: +- 0.15	I totalice itiliti . T- J
Tolerance mm	; - 0.13	T mark through mm a 4.00
0 _4_1 1 1 1 1 1 1 1 1 1	. 9/0	+ rack travel mm : 4.00
Rated speed rpm	: 860	Rated speed rpm : 1125
guide sleeve	<i>-</i>	+ Tolerance 1/min : +- 15
travel mm	: 5.59	† , , , , , , <u>, , , , , , , , , , , , ,</u>
Tolerance mm	: +- 0.25	rack travel mm : 0.50
		+ Tolerance mm : +- 0.50
Rated speed rpm	: 560	+ Rated speed rpm : 1280
guide sleeve		+
travel mm	: 3.24	+
Tolerance mm	: +- 0.25	+
		LOW IDLE
Rated speed rpm	: 1154	<u>↓</u>
guide sleeve		1
travel mm	: 12.00	control lever
Tolerance mm	: +- 0.25	position degree : 75.0
OUTCOME OF THE	. 1 . 0.23	tolerance degree : +- 4.0
Ondered assert asser	. 1270	T Loter drive degree . The 4.0
Rated speed rpm	: 1230	Tosting
		+ Testing:

Rated speed rpm : 300 rack travel mm : 4.60 Tolerance mm : + 0.10

Rated speed rpm : 200

CRT mm min. : > 6.10

Rated speed rpm : 345

TORQUE CONTROL

Rated speed rpm : 1000 rack travel mm : 13.45 Tolerance mm : +- 0.05

ANEROID/ALTITUDE COMPENSATOR TEST

SETTING

Rated speed rpm : 400
Pressure hPa : 1700
rack travel mm : 13.45
Tolerance mm : + 0.05

MEASUREMENT

Pressure hPa : Rated speed rpm : 400
rack travel mm : 8.30
Tolerance mm : + 0.20

Rated speed rpm : 400

Pressure hPa : 450 rack travel mm : 9.20 Tolerance mm : + 0.10

Pressure hPa : 1000 rack travel mm : 12.00 Tolerance mm : +- 0.05

FUEL DELIVERY CHARACTERISTICS

Aneroid pressure

hPa : Rated speed rom : 400
Del. quantity
cm3/1000 strokes : 230

cm3/1000 strokes : 230.0 cm3/1000 strokes : + 1.0

Check tolerance

cm3/1000s. : +- 4.0

BREAKAWAY

Rack travel in mm: 12.40
Rated speed rpm: 1085
Tolerance 1/min: 5

STARTING FUEL DELIVERY

Rated speed rpm : 100 rack travel mm : 8.30 Tolerance mm : + 0.30 Del. quantity cm3/1000 strokes : 135.0

cm3/1000 strokes : 135.0
cm3/1000 strokes : +- 20.0
Check tolerance

cm3/1000s. : +- 24.0

LOW IDLE

Rated speed rpm : 300
Del. quantity
cm3/1000 strokes : 23.0
cm3/1000 strokes : + 3.0
Check tolerance

Check tolerance cm3/1000s. : +- 6.0 Spreed

cm3/1000 strokes : 8.0 Check tolerance cm3/1000s. : 12.0

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

Edition Test oil

: 21.10.96 : ISO 4113

Combination No. : 0 402 646 771

Injection pump

Pump designation : PE6P120A320LS7836-2

EP type number : 0 412 626 944

Governor

Governer design. : RQV300...1050PA1168

: 0 421 814 141 Governer no.

Cust. part No. : 0250749802

Customer-spec. information Customer : MB-NFZ : 0M401 LA Motor Power KW : 180.0

TEST BENCH REQUIREMENTS

Inlet line : 3.1

Test oil inlet

temp. °C Tolerance °C 2.0

Overflow valve : 1 417 413 047

Inlet press. bar : 2.0 : **←** 0.1 Tolerance bar

Overflow quantity

min. L/h Tolerance L/h : + 10.0

Test nozzle holde

: 1 688 901 105 assembly

Opening pressure

208.5 bar Tolerance bar : +- 1.5 Test lines : 1 680 750 075

Outside diameter : 8.0

x inside diameter : 3.0

x length mm : 1000

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values _____

BEGINNING OF DELIVERY

Test pressure bar : 26.0 Tolerance bar : +- 1.0

Prestroke mm : +-5.55 : +- 0.05

Check

tolerance mm : +- 0.10

Rack travel in mm : 20.50 Tolerance mm : \leftarrow 0.50

Firing order : 6-3-5-2-4-

: 1-

Phasing : 0-60-120-180-240

: -300-360

Tolerance : +- 0.30

Check

tolerance *NW : +- 0.75

Start of delivery mark

Barrel no.

BASIC SETTING

Rated speed rpm : 1050

Rack travel in mm: 12.40

Tolerance mm : \leftarrow 0.05

Del. quantity

cm3/1000 strokes : 173.0

7.4000		+ guide sleeve
cm3/1000 strokes	: + 1.0	travel mm : 10.00 Tolerance mm : + 0.25
Check tolerance		1
cm3/1000s.	: +- 4.0	Rated speed rpm : 1280
		+ Rated speed rpm : 1280 + guide sleeve + travel mm : 11.50
Spreed		+ travel mm : 11.50
cm3/1000 strokes	• 50	Tolerance mm : 0.50
CIRCY TOOL SET ONES	. 5.0	Totalice and
Check tolerance		
cm3/1000s.	: 9.0	↓ GUIDE SLEEVE POSITION
(1157 10003.	. 7.0	I GOIDE SEEEVE POSITION
Rated speed rpm	• 300	Rated speed rpm : 1150
Mateu specu i piii	. 500	T Nated speed (pill : 1150
		Rack travel in mam: 11.40
Rack travel in mm	· 3 50	+ Tolerance mm : + 1.30
Tolerance mm		Total alice man
	. +- 0.10	T
Del. quantity	40.0	FILL LASE AFLY THE STATE OF THE
cm3/1000 strokes	: 19.0	+ FULL LOAD DELIVERY AT FULL LOAD STOP
cm3/1000 strokes		+
Check tolerance		+ Rated speed rpm : 1050
cm3/1000s.	: ← 6.0	+ Aneroid pressure
Spreed		+ hPa : 700
cm3/1000 strokes	: 6.0	Del. quantity
Check tolerance		- cm3/1000 strokes : 173.0
cm3/1000s.		- cm3/1000 strokes : +- 1.0
CIRS/ 10003.	. 10.0	Check tolerance
(B) 000000000000000000000000000000000000		+ cm3/1000s. : $+$ 4.0
(B) SETTING OF IN	MECTION PUMP	+ Spreed
WITH GOVERNOR		+ cm3/1000 strokes : 5.0
		+ Check tolerance
		+ cm3/1000s. : 9.0
GUIDE SLEEVE TRAV	/EL	†
Rated speed rpm	: 300	Ţ
guide sleeve		+ CONTROL LEVER
travel mm	: 1.29	+
Tolerance mm		+ control lever
		position degree : 119.0
Rated speed rpm	: 1107	+ tolerance degree : + 4.0
guide sleeve	. 1101	
	: 8.51	T RATED SPEED
travel mm		T KATED SPEED
Tolerance mm	: + 0.15	T
	550	+ rack travel mm : 11.40
Rated speed rpm	: 558	+ Rated speed rpm : 1095
guide sleeve		+ Tolerance 1/min : +- 5
travel mm	: 4.53	+
Tolerance mm	: + 0.25	+ rack travel mm : 4.00
		+ Rated speed rpm : 1170
Rated speed rpm	: 608	+ Tolerance 1/min : + 15
guide sleeve		1000,000 1/1011
travel mm	: 5.03	rack travel mm : 0.75
Tolerance mm	: 0.25	
5 4 1		+ Rated speed rpm : 1300
Rated speed rpm	: 820	†
guide sleeve		†
travel mm	: 6.13	+
Tolerance mm	: 0.25	+ LOW IDLE
		+
Rated speed rpm	: 1183	+

		+	Rated speed rpm	: > 100
control lever position degree tolerance degree		‡	Rated speed rpm Check	: < 220
Testing:		‡	speed 1/min Check	: > 80
Rated speed rpm rack travel mm	: 300 : 3.50	 	speed 1/min	: < 240
Tolerance mm		1	FUEL DELIVERY CHA	ARACTERISTICS
Rated speed rpm	: 200	1	Aneroid pressure	: 700
CRT mm min.	: > 5.30	1	Rated speed rpm Del. quantity	
Rated speed rpm	: 350	Ŧ	cm3/1000 strokes cm3/1000 strokes	
TORQUE CONTROL		+	Check tolerance cm3/1000S.	: + 6.0
Rated speed rpm rack travel mm		Ŧ	Spreed cm3/1000 strokes Check tolerance	: 8.0
Tolerance mm		Ŧ	cm3/1000s.	: 12.0
Rated speed rpm rack travel mm	: 12.40	+	Aneroid pressure	: -
Tolerance mm	: +- 0.10	‡	Rated speed rpm Del. quantity	
ANEROID/ALTITUDE COMPENSATOR TEST			cm3/1000 strokes cm3/1000 strokes Check tolerance	
		‡	cm3/1000s. Spreed	: +- 4.0
SETTING		‡	cm3/1900 strokes Check tolerance	: 8.0
Rated speed rpm Pressure hPa rack travel mm	: 400 : 700 : 12.40	<u> </u>	cm3/1000s.	: 12.0
Tolerance mm	: + 0.05	<u> </u>	BREAKAWAY	
MEASUREMENT		‡	Rack travel in mo	: 11.40
Pressure hPa Rated speed rpm	: - 400	<u> </u>	Rated speed rpm Tolerance 1/min	: 1095
rack travel mm Tolerance mm	: 10.90 : + 0.15	+	Total units	
Rated speed rpm	: 400	‡	STARTING FUEL DEL	IVERY
fressure hPa rack travel mm	: 200 : 11.45	‡	Rated speed rpm Del. quantity	: 100
Tolerance mm	: + 0.20	‡	cm3/1000 strokes cm3/1000 strokes	
Pressure hPa rack travel mm Tolerance mm	: 300 : 12.00 : + 0.20	† † †	Check tolerance cm3/1000s.	: + 19.0
START CUT-OUT		<u> </u>	IOM TOLE	

LOW IDLE

:		300
		19.0
•		
:	+-	3.0
:	+-	6.0
:		6.0
:		10.0
	•	•

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

Edition Test oil

: 23.10.96 : ISO 4113

Combination No. : 0 402 648 789

Injection pump

Pump designation : PE8P120A320LS7873 EP type number : 0 412 628 880

Governor

Governer design. : RQV300...1050PA1259

Governer no. : 0 421 814 169

Cust. part No. : 04222488KY0165-17

Customer-spec. information

Customer : KHD

: BF8M1015/C Motor

Power KW : 400.0

TEST BENCH REQUIREMENTS

Inlet line : 3.2

Test oil inlet

: 40 : +- 2.0 temp. °C Tolerance °C

Overflow valve : 1 417 413 047

Inlet press. bar : 1.5 Tolerance bar : +- 0.1

Overflow quantity

min. L/h : 115 Tolerance L/h : ← 20.0

Test nozzle holde

: 1 688 901 105 assembly

Opening pressure

: 208.5 har : **←** 1.5 Tolerance bar

Test lines : 1 680 750 075

Outside diameter : 8.0

x inside diameter : 3.0 x length mm : 1000

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values _____

BEGINNING OF DELIVERY

Test pressure bar : 26.0 Tolerance bar : + 1.0

: 4.05 Prestroke mm : +- 0.05 Tolerance mm

Check

tolerance mm : \leftarrow 0.10

Rack travel in mm : 10.50 Tolerance mm : +- 1.50

Firing order : 1-8-7-2-6

: - 5- 4- 3

Phasing : 0-45-90-135-180

: -225-270-315

Tolerance : +- 0.30

Check

tolerance °NW : **←** 0.50

Start of delivery mark

Tolerance : \leftarrow 0.50

Check

tolerance °NW : +- 0.75

Barrel no. : 1

BASIC SETTING

Rated speed rpm : 1050

Rack travel in mm : 14.00

Tolerance mm	: ← 0.05	guide sleeve travel mm : 12.00
Del. quantity cm3/1000 strokes	: 340.0	Tolerance mm : + 0.25
cm3/1000 strokes	: 	Rated speed rpm : 1230 guide sleeve travel mm : 13.50
Check tolerance cm3/1000s.	: +- 4.0	Tolerance mm : - 0.50
Spreed cm3/1000 strokes	: 6.0	GUIDE SLEEVE POSITION Rated speed rpm : 1125
Check tolerance cm3/1000s.	: 9.0	Rack travel in mm : 13.00 Tolerance mm : + 1.50
Rated speed rpm	: 300	Toterance ligh . +- 1.30
Rack travel in mm		FULL LOAD DELIVERY AT FULL LOAD STOP Rated speed rpm : 1050
Tolerance mm Del. quantity	: - 0.10	Rated speed rpm : 1050 Aneroid pressure
cm3/1000 strokes		hPa : 1600
cm3/1000 strokes Check tolerance		Del. quantity cm3/1000 strokes : 340.0
cm3/1000s.		cm3/1000 strokes : +- 1.0
Spreed	+	Check tolerance
cm3/1000 strokes		cm3/1000s. : +- 4.0
Check tolerance cm3/1000s.		Spreed cm3/1000 strokes : 6.0
CMD/ 10003.	. 12.0	Check tolerance
	}	cm3/1000s. : 9.0
(B) SETTING OF IN	NECTION PUMP	
WITH GOVERNOR	I	
		CONTROL LEVER
GUIDE SLEEVE TRAV	'EL +	and the Lance
Rated speed rpm	. 300	control lever position degree : 119.0
guide sleeve		tolerance degree : +- 4.0
travel mm	: 1.24 +	
Tolerance mm	: +- 0.20	RATED SPEED
Rated speed rpm	: 1103	rack travel mm : 13.00
guide sleeve	+	Rated speed rpm : 1090
travel mm	: 10.19	Tolerance 1/min : +- 5
Tolerance mm	: + 0.15	rack travel mm : 4.00
Rated speed rpm	: 860	Rated speed rpm : 1140
guide sleeve	+	Tolerance 1/min : +- 15
travel mm	: 5.59	0.50
Tolerance mm	: ← 0.25	rack travel mm : 0.50 Tolerance mm : +- 0.50
Rated speed rpm guide sleeve	: 560	Rated speed rpm : 1300
travel mm	: 3.24	
Tolerance mm	: +- 0.25	LOUIZNE
Rated speed rpm	: 1154	LOW IDLE

control lever position degree : 71.0 tolerance degree : +- 4.0 Testing: Rated speed rpm : 300 : 4.80 rack travel mm : **←** 0.10 Tolerance mm Rated speed rpm 200 : : > 6.30 CRT mm min. 345 Rated speed rpm : TORQUE CONTROL Rated speed rpm : 1050 rack travei mm : 14.00 : **←** 0.05 Tolerance mm ANEROID/ALTITUDE COMPENSATOR TEST SETTING 400 Rated speed rpm : : 1600 Pressure hPa rack travel mm : 14.00
Tolerance mm : + 0.05 MEASUREMENT Pressure hPa 400 Rated speed rpm rack travel mm 9.00 : + 0.20 Tolerance mm Rated speed rpm : 400 570 Pressure hPa 10.50 rack travel mm : **←** 0.10 Tolerance mm : 1100 Pressure hPa : 13.00 rack travel mm : +- 0.05 Tolerance mm FUEL DELIVERY CHARACTERISTICS Aneroid pressure

Rated speed rpm : 400 Del. quantity cm3/1000 strokes : 250.0 cm3/1000 strokes : + 1.0 Check tolerance cm3/1000s. : +- 4.0 BREAKAWAY Rack travel in mm : 13.00 Rated speed rpm : 1090 Tolerance 1/min : +-STARTING FUEL DELIVERY Rated speed rpm : 100 rack travel mm : 9.00 : +- 0.30 Tolerance mm Del. quantity cm3/1000 strokes : 150.0 cm3/1000 strokes : \leftarrow 20.0 Check tolerance cm3/1000s. : +- 24.0 LOW IDLE 300 Rated speed rpm : Del. quantity cm3/1000 strokes : 23.0 cm3/1000 strokes : +-3.0 Check tolerance cm3/1000s. : +-6.0 Spreed cm3/1000 strokes : 8.0 Check tolerance cm3/1000s. 12.0

End of test specification sheet

F01

hPa

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

: 21.10.96 Edition : ISO 4113 Test oil

Combination No. : 0 402 648 952

Injection pump

Pump designation : PE8P12OA32OLS7856 EP type number : 0 412 628 867

Governor

Governer design. : RQV350...1050PA1051

: -1

Governer no. : 0 421 814 039

Cust. part No. : 0230747202

Customer-spec. information Customer : MB-NFZ : 0M442 LA Motor Power KW : 320.0

TEST BENCH REQUIREMENTS

Inlet line : 3.1

Test oil inlet

temp. °C Tolerance °C : +- 2.0

Overflow valve : 1 417 413 047

Inlet press. bar : 2.0

Overflow quantity

70 min. L/h : 70 Tolerance L/h : +- 10.0

Test nozzle holde

: 1 688 901 105 assembly

Opening pressure

: 208.5 bar Tolerance bar : + 1.5 Test lines : 1 680 750 075

Outside diameter : 8.0

x inside diameter : 2.5

x length mm : 1000

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values _____

BEGINNING OF DELIVERY

Test pressure bar : 26.0 Tolerance bar : + 1.0

Prestroke mm : 5.25
Tolerance mm : + 0.05 5.25 Check

tolerance mm : \leftarrow 0.10

Rack travel in mm: 20.50 Tolerance mm: + 0.50

Firing order : 8-7-2-6-3

: - 5- 4- 1

Phasing : 0-45-90-135-180

: -225-270-315

: + - 0.30Tolerance

Check

tolerance "NW : +- 0.50

Start of delivery mark

Tolerance : +- 0.10

Check

tolerance °NW : **←** 0.75

8 Barrel no. :

BASIC SETTING

Rated speed rpm : 600

Rack travel in mm : 13.25 Tolerance mm : +- 0.05

		+ Rated speed rpm : 1170
Del. quantity cm3/1000 strokes	: 239.0	Rack travel in mm : 12.80 Tolerance mm : +- 1.30
cm3/1000 strokes	: + 1.0	
Check tolerance cm3/1000s.	: + 4.0	FULL LOAD DELIVERY AT FULL LOAD STOP
Spreed		Rated speed rpm : 600 Aneroid pressure
cm3/1000 strokes	: 6.0	+ hPa : 1000 + Del. quantity
Check tolerance cm3/1000s.	: 9.0	+ cm3/1000 strokes : 239.0 + cm3/1000 strokes : + 1.0 + Check tolerance
Rated speed rpm	: 350	cm3/1000S. : +- 4.0 Spreed - cm3/1000 strokes : 6.0
Rack travel in m	n: 4.60	+ Check tolerance
Tolerance mm		- cm3/1000s. : 9.0
Del. quantity	40.0	†
cm3/1000 strokes		†
cm3/1000 strokes		CONTROL LEVED
Check tolerance cm3/1000s.	: +- 6.0	CONTROL LEVER
	: + 0.0	+ control lever
Spreed	: 8.0	
cm3/1000 strokes Check tolerance	. 0.4	<pre>+ position degree : 106.0 + tolerance degree : +- 4.0</pre>
cm3/1000s.	: 12.0	toterance degree : +- 4.0
(1137 10003.	: 12.0	RATED SPEED
(B) SETTING OF IN	LIECTION DIMO	† rack travel mm : 11.90
- · ·	NJECTION PUMP	+ Rated speed rpm : 1085
WITH GOVERNOR		+ Tolerance 1/min : +- 5
<u> </u>		+ Total and Trimin
GUIDE SLEEVE TRAN	/EL	rack travel mm : 4.00 Rated speed rpm : 1160
Rated speed rpm guide sleeve	: 350	Tolerance 1/min : +- 15
travel mm	: 1.25	rack travel mm : 0.85
Tolerance mm	: + 0.25	Tolerance mm : + 0.55
TO LET GITCE HIM		+ Tolerance mm : + 0.55 + Rated speed rpm : 1300
Rated speed rpm guide sleeve	: 1108	1.000 0000 1000
travel mm	: 9.65	
Tolerance mm	: +- 0.25	LOW IDLE
Rated speed rpm	: 453	control leven
guide sleeve	. 255	+ control lever
travel mm	: 2.55 · - 0.35	<pre>+ position degree : 72.0 + tolerance degree : +- 4.0</pre>
Tolerance mm	: +- 0.25	+ toterance degree : +- 4.0
Rated speed rpm guide sleeve		Testing:
travel mm	: 4.95	+ Rated speed rpm : 350
Tolerance mm	: +- 0.25	+ rack travel mm : 4.60 + Tolerance mm : +- 0.10
		Tolerance mm : +- 0.10
GUIDE SLEEVE POSI	TION	Rated speed rpm : 250
		Ť

CRT mm min.	·> 7.80	+ Del. quantity + cm3/1000 strokes : 224.0
		- cm3/1000 strokes : +- 2.0
Rated speed rpm	: 400	+ Check tolerance
		+ cm3/1000s. : +- 5.0
T00010 0010001		
TORQUE CONTROL		+ cm3/1000 strokes : 8.0 + Check tolerance
Rated speed rpm	: 600	- cm3/1000s. : 12.0
rack travel mm		1
Tolerance mm		Aneroid pressure
		+ hPa : 1000
Rated speed rpm	: 1050	Rated speed rpm : 1050
rack travel mm		Del. quantity
Tolerance mm	: +- 0.10	- cm3/1000 strokes : 168.0
Rated speed rpm	• 1050	+ cm3/1000 strokes : +- 2.0 + Check tolerance
rack travel mm	: 10.40	cm3/1000s. : +- 5.0
Tolerance mm		
	, ,,,,	Aneroid pressure
ANEROID/ALTITUDE		Rated speed rpm : 500
COMPENSATOR TEST		+ Del. quentity
		+ cm3/1000 strokes : 143.0
CETTING		+ cm3/1000 strokes : +- 1.0 + Check tolerance
SETTING		+ cm3/1000s. : +- 4.0
Rated speed rpm	: 500	Spreed
Pressure hPa	: -	cm3/1000 strokes : 8.0
	•	- Check tolerance
MEASUREMENT		+ cm3/1000s. : 12.0
		+
Pressure hPa	: 250	
Rated speed rpm	; 500	BREAKAWAY
rack travel mm Tolerance mm		Ī
toterative initi	. +- 0.05	Rack travel in mm : 11.90
Rated speed rpm	: 500	+ Rated speed rpm : 1085
· · · · · · · · · · · · · · · · · · ·		+ Tolerance 1/min : +- 5
Pressure hPa	: 600	+
rack travel mm	: 2.30	+
Tolerance mm	: ← 0.10	OTABETAIN SIET OF THE SE
		+ STARTING FUEL DELIVERY
START CUT-OUT		Rated speed rpm : 100
OTAKI COL COL		Del. quantity
Rated speed rpm	: > 100	+ cm3/1000 strokes : 250.0
Rated speed rpm		+ cm3/1000 strokes : +- 10.0
•		L Check tolerance
Check		+ cm3/1000s. : $+$ 14.0
speed 1/min	: > 80	†
Check	: < 290	İ
speed 1/min	: < 290	I
		LOW IDLE
FUEL DELIVERY CHA	ARACTERISTICS	+
		Rated speed rpm : 350
Aneroid pressure	4000	+ Del. quantity
hPa	: 1000	+ cm3/1000 strokes : 19.0
Rated speed rpm	: 1050	+ cm3/1000 strokes : +- 3.0

Check tolerance cm3/1000s. : + 6.0

Spreed cm3/1000 strokes : 8.0

Check tolerance cm3/1000s.

: 12.0

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

Edition : 21.10.96 Test oil : ISO 4113

Combination No. : 0 402 676 830

Injection pump

Pump designation : PE6P12OA32OLS7894 EP type number : 0 412 626 954

Governor

Governer design. : RSV600...1050P0A642

Governer no. : 0 421 833 556

Cust. part No. : 0270746002

Customer-spec. information Customer : MB-NFZ Motor : OM 441 LA Power KW : 285.0

TEST BENCH REQUIREMENTS

Inlet line : 3.1

Test oil inlet

temp. °C : 40
Talerance °C : +- 2.0

Overflow valve : 2 417 413 077

Inlet press. bar : 2.0 Tolerance bar : + 0.1

Overflow quantity

min. l/h : 105 Tolerance l/h : + 10.0

Test nozzle holde

assembly : 1 688 901 105

Opening pressure

bar : 208.5 Tolerance bar : + 1.5 Test lines : 1 680 750 075

Outside diameter : 8.0

x inside diameter: 3.0 x length mm : 1000

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values _____

BEGINNING OF DELIVERY

Test pressure bar : 26.0 Tolerance bar : + 1.0

Prestroke mm : 4.75
Tolerance mm : + 0.05

Check

tolerance mm : + 0.10

Rack travel in mm : 20.50 Tolerance mm : + 0.50

Firing order : 6-3-5-2-4-

: 1

Phasing : 0-45-120-165-240

: -285

Tolerance : + 0.30

Check

tolerance *NW : +- 0.50

Start of delivery mark

Tolerance : +- 0.10

Check

tolerance °NW : +- 0.75

Barrel no. : 6

BASIC SETTING

Rated speed rpm : 1075

. 1015

Rack travel in mm Tolerance mm Del. quantity cm3/1000 strokes	: + 0.05 	Check tolerance cm3/1000s. Spreed cm3/1000 strokes Check tolerance cm3/1000s.	: ← 4.0 : 6.0 : 9.0
Check tolerance cm3/1000s.	: +- 4.0	CONTROL LEVER	
Spreed cm3/1000 strokes	: 6.0	position degree tolerance degree	
Check tolerance cm3/1000s.	: 9.0	RATED SPEED rack travel mm	: 12.70
Rated speed rpm	: 600	Rated speed rpm Tolerance 1/min	: 1115
Rack travel in mm Tolerance mm	: 4.10 : ← 0.10		
Del. quantity cm3/1000 strokes cm3/1000 strokes		LOW IDLE	
Check tolerance cm3/1000s. Spreed	: +- 6.0	control lever position degree tolerance degree	
cm3/1000 strokes Check tolerance	4	Testing:	• • • • • • • • • • • • • • • • • • • •
(B) SETTING OF INJ	-	Rated speed rpm rack travel mm Tolerance mm	: 4.10
WITH GOVERNOR		rack travel mm Rated speed rpm Tolerance 1/min	
GUIDE SLEEVE POSIT	-	- Rated speed rpm	
Rack travel in mm Tolerance mm		CRT mm min SET IDLE AUXILIA	
governor spring		räck travel mm	
pre-tension click setting x	: 4.00	TORQUE CONTROL	
	AT FULL LOAD STOP	Rated speed rpm rack travel mm Tolerance mm	: 1075 : 13.70
Rated speed rpm Aneroid pressure hPa		- Tolerance mm - - Rated speed rpm - rack travel mm	: 800
Del. quantity cm3/1000 strokes cm3/1000 strokes	: 251.0 : + 1.0	Tolerance mm Rated speed rpm	: + 0.10
	'	opood . piii	

rack travel mm : 14.35 Tolerance mm : +- 0.10

FUEL DELIVERY CHARACTERISTICS

Aneroid pressure

hPa Rated speed rpm : 800

Del. quantity cm3/1000 strokes : 291.0 cm3/1000 strokes : + 3.0 Check tolerance

cm3/1000s. : +- 6.0

BREAKAWAY

Rack travel in mm: 12.70 Rated speed rpm : 1115 Tolerance 1/min : +- 5

STARTING FUEL DELIVERY

Rated speed rpm : 100

Del. quantity

cm3/1000 strokes : 290.0 cm3/1000 strokes : + 10.0

Check tolerance

cm3/1000s. : + 14.0

LOW IDLE

Rated speed rpm : 600

Del. quantity cm3/1000 strokes : 17.0 cm3/1000 strokes : +-3.0

Check tolerance

cm3/1000s. : +- 6.0 Spreed

cm3/1000 strokes : 8.0

Check tolerance

: 12.0 cm3/1000s.

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

Edition : 07.08.96 Test oil : 180 4113

Combination No. : 0 402 736 891

Injection pump

Pump designation : PES6P12DA12DRS7314

EP type number : 0 412 726 901

Governor

Governer design. : RQV400...1250PA964

: -33K

Governer no. : 0 421 815 487

Cust. part No. : 3282608

Customer—spec. information Customer : CUMMINS Motor : 6BTAA Power KW : 173.0

TEST BENCH REQUIREMENTS

Inlet line : 3.2

Test oil inlet

temp. *C : 40
Tolerance *C : +- 2.0

Overflow valve : 2 417 413 093

Inlet press. bar : 2.0
Tolerance bar : + 0.1

Tolerance l/h: +- 20.0

Test nozzle holde

assembly : 1 688 901 101

Opening pressure

bar : 208.5 Tolerance bar : + 1.5 Test lines : 1 680 750 008

Outside diameter : 6.0

x inside diameter: 2.0

x length mm : 600

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values _____

BEGINNING OF DELIVERY

Test pressure bar : 26.0 Tolerance bar : + 1.0

Prestroke mm : 3.70 Tolerance mm : + 0.05

Check

tolerance mm : + 0.10

Rack travel in mm : 12.50 Tolerance mm : + 0.50

Firing order : 1-5-3-6-2-

: 4

Phasing : 0-60-120-180-240

: -300

Tolerance : \leftarrow 0.30

Check

tolerance $^{\circ}NW$: \leftarrow 0.50

Start of delivery blocking

*NW after s.o.d. : 6.50

Tolerance : \leftarrow 0.50

Check

tolerance *NW : +- 0.75

Barrel no. : 1

BASIC SETTING

Rated speed rpm : 1250

1250

		+ kated speed rpm 1010
Rack travel in mo		+ guide sleeve
Tolerance mm	: +- 0.05	🕂 travel mm : 13.50
		+ Tolerance mm : +- 0.50
Del. quantity		1
cm3/1000 strokes	. 160.0	
CMS/ 1000 Strokes	. 100.0	CUIDE OF FEUE DOCTETON
		+ GUIDE SLEEVE POSITION
cm3/1000 strokes	: +- 1.0	+
		+ Rated speed rpm : 1400
Check tolerance		1
cm3/1000s.	: + 4.0	Rack travel in mm: 14.30
Chip/ 10003.	4.0	
	·	Tolerance mm : + 2.00
Spreed	•	+
cm3/1000 strokes	: 5.0	
		FULL LOAD DELIVERY AT FULL LOAD STOP
Check tolerance		1
	. 00	Dated and d 1250
cm3/1000s.	: 9.0	Rated speed rpm : 1250
	•	+ Aneroid pressure
Rated speed rpm	: 400	├ hPa : 1500
		Del. quantity
		cm3/1000 strokes : 160.0
Park Americal de	4 50	
Rack travel in mo		- cm3/1000 strokes : +- 1.0
Tolerance mm	: +- U.10	- Check tolerance
Del. quantity	,	+ cm3/1000s. : +- 4.0
cm3/1000 strokes	20.0	Spreed
cm3/1000 strokes		cm3/1000 strokes : 5.0
Check tolerance		- Check tolerance
cm3/1000s.	: 5.0	- cm3/1000s. : 9.0
Spreed	•	+
cm3/1000 strokes	7.0	
Check tolerance		
		CONTROL A EVER
cm3/1000s.	: 11.0	CONTROL LEVER
	•	†
	•	+ control lever
(B) SETTING OF IN	JECTION PUMP .	position degree : 66.0
WITH GOVERNOR		tolerance degree : + 4.0
WITH GOVERNOR)
	•	T
		control lever
GUIDE SLEEVE TRAV	EL -	position degree : 119.0
	•	tolerance degree : + 4.0
Rated speed rpm	: 400	1
		RATED SPEED
guide sleeve	. 4 00	T MIED SPEED
travel mm Tolerance mm	: 1.85	†
Tolerance mm	: +- 0.20	rack travel mm : 14.30
		Rated speed rpm : 1295
Rated speed rpm	: 1315	Tolerance 1/min : + 5
guide sleeve	. 0.00	needs Americal arm in 1 00
guide sleeve travel mm Tolerance mm	: 9.98	rack travel mm : 4.00 Rated speed rpm : 1450
Tolerance mm	: +- 0.15	+ Rated speed rpm : 1450
		Tolerance 1/min : + 15
Rated speed rpm	• 93:5	1
		nack that of man . 0 50
guide sleeve travel mm Tolerance mm		rack travel mm : 0.50
travel mm	: 6.85	Tolerance mm : +- 0.50
Tolerance mm	: + 0.25 ·	Rated speed rpm : 1550
		.
Rated speed rpm	• 600	L
rateu speeu rpm	. 000	
guide sleeve	.	
guide sleeve travel mm Tolerance mm	: 4.13 -	LOW IDLE
Tolerance mm	: +- 0.25 -	}
• • · · · · · · · · · · · · · · · · ·	•	
		ı

+ Rated speed rpm : 1610

		1		
control lever position degree tolerance degree	: 68.0 : + 4.0	† † †	Pressure hPa rack travel mm Tolerance mm	: 275 : 11.70 : + 0.20
control lever position degree tolerance degree	: 16.0 : +- 4.0	† † †	Pressure hPa rack travel mm Tolerance mm	: 13.80
Testing:		‡	START CUT-OUT	
Rated speed rpm rack travel mm Tolerance mm	: 400 : 6.50 : + 0.10	+++++++++++++++++++++++++++++++++++++++	Rated speed rpm Rated speed rpm	: > 270 : < 340
Rated speed rpm	: 300	1	Check speed 1/min	• > 250
CRT mm min.	: > 8.00	Ŧ	Check speed 1/min	
Rated speed rpm	: 430	Ŧ	speed //min	: < 300
TODOUE CONTROL		 ‡	FUEL DELIVERY CHA	RACTERISTICS
TORQUE CONTROL	4070	Ŧ	Aneroid pressure	4500
Rated speed rpm rack travel mm	: 15.30	‡	hPa Rated speed rpm	: 1500 : 750
Tolerance mm	: +- 0.05	‡	Del. quantity cm3/1000 strokes	: 146.0
Rated speed rpm rack travel mm Tolerance mm	: 750 · 13 70	İ	cm3/1000 strokes	: ← 3.0
Tolerance mm	: ← 0.10	-	Check tolerance cm3/1000s.	: +- 6.0
Rated speed rpm	: 550	‡	Spreed cm3/1000 strokes	
rack travel mm Tolerance mm	: 12.90 : + 0.15	‡	Check tolerance cm3/1000S.	: 16.0
Rated speed rpm rack travel mm Tolerance mm	: 400 : 12.50 : + 0.15	† † † †	Aneroid pressure hPa Rated speed rpm Del. quantity cm3/1000 strokes	
ANEROID/ALTITUDE COMPENSATOR TEST			cm3/1000 strokes Check tolerance cm3/1000s.	· +- 2 N
SETTING		‡		
Rated speed rpm Pressure hPa rack travel mm Tolerance mm	: 1500 : 15.30	† † † †	Rack travel in mm Rated speed rpm Tolerance 1/min	: 14.30 : 1295 : + 5
Pressure hPa Rated speed rpm rack travel mm	: 11.35	+	STARTING FUEL DEL	
Tolerance mm	: ← 0.10	‡	Rated speed rpm Del. quantity	: 100
Rated speed rpm	: 1250	+	cm3/1000 strokes	: 215.0

cm3/1000 strokes : + 15.0Check tolerance

cm3/1000s. ; -- 19.0

LOW IDLE

cm3/1000s.

400 Rated speed rpm : Del. quantity cm3/1000 strokes : 20.0 cm3/1000 strokes : +-3.0 Check tolerance 5.0 cm3/1000s. Spreed 7.0 cm3/1000 strokes : Check tolerance

11.0

Note remarks

Refer to Service Info for test and adjustment instructions.
See microcard(s) W400/...

Edition : 23.10.96 Test oil : ISO 4113

Combination No. : 0 402 746 603

Injection pump

Pump designation : PES6P12DA32ORS7359 EP type number : 0 412 726 925

Governor

Governer design. : RQ300/1050PA999-7 Governer no. : 0 421 801 799

Cust. part No. : CCEP 5153 66-224

Customer-spec. information

Customer : RENAULT V.I.
Motor : MIHR062045 A41

Power KW : 188.0

TEST BENCH REQUIREMENTS

Inlet line : 3.1

Test oil inlet

temp. °C : 40
Tolerance °C : + 2.0

Overflow valve : 2 417 413 078

Inlet press. bar : 2.5 Tolerance bar : + 0.1

Test nozzle holde

assembly : 1 688 901 101

Opening pressure

bar : 208.5 Tolerance bar : + 1.5

Test Lines : 1 680 750 008

Outside diameter : 6.0

x inside diameter : 2.0 x length mm : 600

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values _____

BEGINNING OF DELIVERY

Test pressure bar : 26.0 Tolerance bar : + 1.0

Prestroke mm : 4.70Tolerance mm : $\leftarrow 0.05$

Check

tolerance mm : + 0.10

Rack travel in mm : 20.25 Tolerance mm : + 0.75

Firing order : 1-5-3-6-2-

: 4

Phasing : 0-60-120-180-240

: -300

Tolerance : + 0.30

Check

tolerance *NW : +- 0.50

Start of delivery mark

Tolerance : +- 0.50

Check

tolerance *NW : + 0.75

Barrel no. : 1

CRT ZERO POSITION

Rack travel in mm : 12.30 Tolerance mm : +- 0.05

BASIC SETTING

Rated speed rpm : 600

Tolerance mm	: +- 0.05	+ guide sleeve
		_ + travel mm : 6.00
Del. quantity		Tolerance mm : +- 0.10
cm3/1000 strokes	: 192.N	100014110011111
CILCY TOOG OUT ONCO	. ,,,,,,	_ + Rated speed rpm : 1380
cm3/1000 strokes	• +- 10	guide sleeve
CIIDA 1000 SCLOKES	. +- 1.0	travel mm : 11.50
Charle dalamana		
Check tolerance		Tolerance mm : - 0.50
cm3/1000s.	: +- 4.0	†
On a const		- CUITAGE OF SELECTION
Spreed	5.0	+ GUIDE SLEEVE POSITION
cm3/1000 strokes	: 5.0	†
~!		_ + Rated speed rpm : 800
Check tolerance		†
cm3/1000S.	: 9.0	+ Rack travel in mm : 20.00
		+ Tolerance mm : +- 0.80
Rated speed rpm	: 275	+
		+
		+ FULL LOAD DELIVERY AT FULL LOAD STOP
Rack travel in m		†
Tolerance mm	: +- 0.10	+ Rated speed rpm : 600
Del. quantity	-	+ Aneroid pressure
cm3/1000 strokes		+ hPa : 1000
cm3/1000 strokes	: 2.0	+ Del. quantity
Check tolerance		+ cm3/1000 strokes : 192.0
cm3/1000s.	: ← 5.0	+ cm3/1000 strokes : +- 1.0
Spreed		+ Check tolerance
cm3/1000 strokes	: 8.0	+ cm3/1000s. : +- 4.0
Check tolerance		+ Spreed
cm3/1000s.	: 12.0	+ cm3/1000 strokes : 5.0
		+ Check tolerance
		+ cm3/1000s. : 9.0
(B) SETTING OF I	NJECTION PUMP	1
WITH GOVERNOR		
		AL AREFORD
		+ CONTROL LEVER
GUIDE SLEEVE TRAN	VEL	+
		+ control lever
Rated speed rpm	: 275	position degree : 276.0
guide sleeve		tolerance degree : + 4.0
travel mm	: 1.75	+
Tolerance mm	: + 0.20	+ RATED SPEED
	** *	+
Rated speed rpm	: 1145	<pre> + rack travel mm : -1.00 </pre>
guide sleeve		Rated speed rpm : 1130
travel mm	: 6.55	+ Tolerance 1/min : +- 15
Tolerance mm		4
50: 6:100 11811		∔ rack travel mm : -8.30
Rated speed rpm	: 1050	Rated speed rpm : 1260
guide sleeve		+ Tolerance 1/min : + 5
travel mm	: 6.00	
Tolerance mm		rack travel mm : -11.80
TOTEL BLICE INH	• • • • • • • • • • • • • • • • • • • •	+ Tolerance mm : +- 0.50
Rated speed rpm	: 594	Rated speed rpm : 1375
guide sleeve	. 374	indica speed (pill . 1919
	: 5.11	1
travel mm Tolerance mm	• + 0.10	I
ioterance am	0.10	LOW IDLE
Dotod annot	. 720	I LOW TOLE
Rated speed rpm	: 720	T
		Τ

control lever position degree tolerance degree		Check speed 1/min :> 80 Check
Testing:	4.0	speed 1/min : < 215
Rated speed rpm	: 275	FUEL DELIVERY CHARACTERISTICS
rack travel mm Tolerance mm	: -5.90 : +- 0.10	Aneroid pressure
rack travel mm Rated speed rpm Tolerance 1/min	: -10.30 : 520	hPa : 1000 Rated speed rpm : 1050 Del. quantity cm3/1000 strokes : 199.0
Rated speed rpm		+ cm3/1000 strokes : +- 3.0 + Check tolerance
CRT mm min.	: > -4.00	cm3/1000s. : + 6.0
TORQUE CONTROL		+ Aneroid pressure
	: 600	Del. quantity cm3/1000 strokes : 151.0
Rated speed rpm Tolerance mm		+ cm3/1000 strokes : +- 1.0
Rated speed rpm Tolerance mm	: 1050 : +- 0.10	Check tolerance cm3/1000s. : +- 4.0
ANEROID/ALTITUDE COMPENSATOR TEST		BREAKAWAY
SETTING		Rack travel in mm: -1.00 Rated speed rpm: 1130 Tolerance 1/min: +- 15
Rated speed rpm Pressure hPa	: 500 : 1000	
MEASUREMENT		STARTING FUEL DELIVERY
Pressure hPa	: -	Rated speed rpm : 100 Del. quantity
Rated speed rpm rack travel mm Tolerance mm	: -1.35	cm3/1000 strokes : 155.0 cm3/1000 strokes : +- 15.0 Check tolerance
Rated speed rpm	: 500	+ cm3/1000s. : +- 19.0
Pressure hPa rack travel mm	: 220 : -0.45	<u> </u>
Tolerance mm		LOW IDLE
Pressure hPa rack travel mm Tolerance mm	: 160 : −0.85 : + 0.05	Rated speed rpm : 275 Del. quantity cm3/1000 strokes : 37.0 cm3/1000 strokes : +- 2.0
START CUT-OUT		
Rated speed rpm Rated speed rpm		+ Spreed + cm3/1000 strokes : 8.0 +
F15		

Check tolerance cm3/1000s.	:	12.0	

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

: 22.10.96 Edition : ISO 4113 Test oil

Combination No. : 0 402 746 608

Injection pump

Pump designation : PES6P120A320RS7359

EP type number : 0 412 726 925

Governor

Governer design. : RQ275/1050PA1275 6overner no. : 0 421 801 805

Cust. part No. : CCEP 5157A 66-222

Customer-spec. information

Customer : RENAULT V.I.

: MIDRO62045 F/C41 Motor

: 152.0 Power KW

TEST BENCH REQUIREMENTS

Inlet line : 3.1

Test oil inlet

temp. °C : **←** 2.0 Tolerance °C

Overflow valve : 2 417 413 078

Inlet press. bar : Tolerance bar : + 0.1

Overflow quantity

min. L/h : 220 Tolerance L/h : + 10.0

Test nozzle holde

: 1 688 901 101 assembly

Opening pressure

bar : 208.5 Tolerance bar : + 1.5

Test lines : 1 680 750 008

Outside diameter : 6.0

x inside diameter : 2.0 x length mm : 600

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values _____

BEGINNING OF DELIVERY

26.0 Test pressure bar : : + 1.0 Tolerance bar

: 4.70 : +- 0.05 Prestroke mm

: +- 0.05 Tolerance mm

Check

: + 0.10 tolerance mm

Rack travel in mm: 20.25 Tolerance mm : +- 0.75

Firing order : 1-5-3-6-2-

: 4

Phasing : 0-60-120-180-240

: -300

Tolerance : ← 0.30

Check

tolerance °NW : +- 0.50

Start of delivery mark

*NW after s.o.d. : -0.45

: +- 0.50 Tolerance

Check

tolerance *NW : +- 0.75

: 1 Barrel no.

CRT ZERO POSITION

Rack travel in mm: 11.70

7-1	0.05	mužda ataus
Tolerance mm	: + 0.05	· guide sleeve · travel mm : 6.18
		Tolerance mm : + 0.10
BASIC SETTING	+	
	1050	Rated speed rpm : 375
Rated speed rpm	: 1050	guide sleeve travel mm : 5.00
Del. quantity		Tolerance man : - 0.10
cm3/1000 strokes	: 176.0	•
7.4656		Rated speed rpm : 450
cm3/1000 strokes	: + 1.0	guide sleeve travel mm : 6.00
Check tolerance		Tolerance mm : +- 0.10
cm3/1000s.	: + 4.0	
		Rated speed rpm : 1300
Spreed	: 5.0	guide sleeve travel mm : 11.50
cm3/1000 strokes	: 5.0 I	travel mm : 11.50 Tolerance mm : +- 0.50
Check tolerance		
cm3/1000s.	: 9.0	Rated speed rpm : 873
	775	guide sleeve
Rated speed rpm	: 275	travel mm : 6.52 Tolerance mm : + 0.10
	1	
Rack travel in m		
Tolerance mm	: ← 0.10 	GUIDE SLEEVE POSITION
Del. quantity cm3/1000 strokes	: 30.0	Rated speed rpm : 500
cm3/1000 strokes	· · · · · · · · · · · · · · · · · · ·	hated speed i più : 500
Check tolerance	÷	Rack travel in mm : 20.00
cm3/1000s.	: ← 5.0 +	Tolerance mm : +- 0.80
Spreed cm3/1000 strokes	: 8.0	
Check tolerance	. 0.0	FULL LOAD DELIVERY AT FULL LOAD STOP
cm3/1000s.	: 12.0	
	+	Rated speed rpm : 1050
(B) SETTING OF IN	LIECTION DUMP	Aneroid pressure hPa : 1000
WITH GOVERNOR	MECITON FOR	Del. quantity
W2111 0000101011	į.	cm3/1000 strokes : 176.0
	 	cm3/1000 strokes : + 1.0
GUIDE SLEEVE TRAV	/EL †	Check tolerance cm3/1000s. : +- 4.0
Rated speed rpm	: 275	Spreed : +- 4.0
guide sleeve	†	cm3/1000 strokes : 5.0
travel mm	: 2.44	Check tolerance
Tolerance mm	: + 0.20 +	cm3/1000s. : 9.0
Rated speed rpm	: 1122	
guide sleeve	+	
travel mm	: 7.06	CONTROL LEVER
Tolerance mm	: +- 0.15	control lever
Rated speed rpm	: 1050	position degree : 276.0
guide sleeve	1	tolerance degree : + 4.0
travel mm	: 6.70	•
Tolerance mm	: + 0.10 +	RATED SPEED
Rated speed rpm	: 648	rack travel mm : −1.00
varen sheen thii		Rated speed rpm : 1115
	•	,

Tolerance 1/min rack travel mm Rated speed rpm Tolerance 1/min	: −7.70 : 1205 : + 15	† † † †	Pressure hPa Rated speed rpm rack travel mm Tolerance mm Rated speed rpm	: -0.60 : +- 0.20
rack travel mm Tolerance mm Rated speed rpm	: −11.20 : ← 0.50 : 1350	† † †	Pressure hPa rack travel mm Tolerance mm	: 0.65
LOW IDLE		}	Pressure hPa rack travel mm Tolerance am	: -0.15
control lever position degree tolerance degree	: 256.0 : +- 4.0	‡	START CUT-OUT Rated speed rpm	: > 100
Testing:		+	Rated speed rpm	: < 195
Rated speed rpm rack travel mm Tolerance mm	: 275 : -5.40 : + 0.10	‡	Check speed 1/min Check	
rack travel mm Rated speed rpm	: -9.60	‡	speed 1/min	: < 215
Tolerance 1/min	: +- 20	+	FUEL DELIVERY CHA	RACTERISTICS
Rated speed rpm		‡	Aneroid pressure hPa	: 1000
CRT mm min.	: < -3.50	‡	Rated speed rpm Del. quantity cm3/1000 strokes	
TORQUE CONTROL		1	cm3/1000 strokes Check tolerance	: +- 3.0
Rated speed rpm	: 1050	‡	cm3/1000s.	: +- 6.0
Rated speed rpm rack travel mm Tolerance mm		‡	Aneroid pressure hPa Rated speed rpm	: - : 500
Rated speed rpm	: 800_	‡	Del. quantity cm3/1000 strokes	
rack travel mm Tolerance mm	: 0.70 : + 0.20		cm3/1000 strokes Check tolerance cm3/1000s.	
ANEROID/ALTITUDE COMPENSATOR TEST		 	BREAKAWAY	
SETTING			Rack travel in mm Rated speed rpm	
Rated speed rpm Pressure hPa rack travel mm			Tolerance 1/min	
Tolerance mm	: +- 0.10	‡	STARTING FUEL DELI	[VERY
MEASUREMENT		‡	Rated speed rpm	: 100

Del. quantity cm3/1000 strokes : 155.0 cm3/1000 strokes : + 15.0 Check tolerance

cm3/1000s. : +- 19.0

LOW IDLE

Rated speed rpm : 275

Del. quantity
cm3/1000 strokes : 30.0
cm3/1000 strokes : + 2.0

Check tolerance
cm3/1000s. : + 5.0

Spreed
cm3/1000 strokes : 8.0

Check tolerance
cm3/1000s. : 12.0

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

Edition : 23.10.96 Test oil : ISO 4113

Combination No. : 0 402 746 649

Injection pump

Pump designation : PES6P120A320RS7359

EP type number : 0 412 726 925

Governor

Governer design. : RQ275/1050PA1217 Governer no. : 0 421 801 782

Cust. part No. : CCEP5150A 66

: -225/228

Customer-spec. information

Customer : RENAULT V.I.
Motor : MIDR062045 I-B41

Power KW : 185.0

TEST BENCH REQUIREMENTS

Inlet line : 3.1

Test oil inlet

temp. °C : 40
Tolerance °C : +- 2.0

Overflow valve : 2 417 413 078

Inlet press. bar : 2.5 Tolerance bar : + 0.1

Overflow quantity

min. l/h : 220 Tolerance l/h : + 10.0

Test nozzle holde

assembly : 1 688 901 101

Opening pressure

bar : 208.5 Tolerance bar : + 1.5 Test lines : 1 680 750 008

Outside diameter : 6.0

x inside diameter : 2.0 x length mm : 600

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values _____

BEGINNING OF DELIVERY

Test pressure bar : 26.0 Tolerance bar : + 1.0

Prestroke mm : 4.70 Tolerance mm : + 0.05

Check

tolerance mm : +- 0.10

Rack travel in mm : 20.25 Tolerance mm : + 0.75

Firing order : 1-5- 3- 6- 2-

: 4

Phasing : 0-60-120-180-240

: -300

Tolerance : +- 0.30

Check

tolerance *NW : +- 0.50

Start of delivery mark

*NW after s.o.d. : -0.95

Tolerance : +- 0.50

Check

tolerance *NW : \leftarrow 0.75

Barrel no. : 1

CRT ZERO POSITION

Rack travel in mm: 12.40

\perp \perp \perp \perp \perp \perp \perp \perp \perp \perp	4.37
BASIC SETTING + Tolerance mm : + C	
Rated speed rpm : 49 Rated speed rpm : 600 + guide sleeve + travel mm : 6	90 6.00
Del. quantity Tolerance mm : :- 0 Tolerance mm : :- 0	0.10
cm3/1000 strokes : + 1.0 + Rated speed rpm : 134	
Check tolerance travel mm : 11 Check tolerance Tolerance mm : + C cm3/1000s. : + 4.0	1.50 0.50
Spreed GUIDE SLEEVE POSITION cm3/1000 strokes : 5.0	
Check tolerance + Rated speed rpm : 60	00
cm3/1000s. : 9.0 + Rack travel in mm : 20 + Tolerance mm : +- 0	0.00 0.80
Rated speed rpm : 275	
Rack travel in mm: -6.20 + FULL LOAD DELIVERY AT FUL	L LOAD STOP
Tolerance mm : + 0.10 + Rated speed rpm : 60 Del. quantity + Aneroid pressure	00
cm3/1000 strokes : 31.0 + hPa : 100	00
Check tolerance + cm3/1000 strokes : 18	36.0
cm3/1000s. : + 5.0 + cm3/1000 strokes : + Spreed + Check tolerance	1.0
cm3/1000 strokes : 8.0 + cm3/1000s. : +-	4.0
Check tolerance + Spread + cm3/1000s : 12.0 + cm3/1000 strokes :	5.0
Check tolerance cm3/1000s. :	9.0
(B) SETTING OF INJECTION PUMP WITH GOVERNOR	····
GUIDE SLEEVE TRAVEL CONTROL LEVER	
→ control lever	
Rated speed rpm : 275 + position degree : 27 guide sleeve + tolerance degree : +-	
travel mm : 1.37 +	
Tolerance mm : +- 0.10 + RATED SPEED	
Rated speed rpm : 1137 + rack travel mm : -1 guide sleeve + Rated speed rpm : 112	
travel mm : 6.37 + Tolerance 1/min : +-	.u 5
Tolerance mm : + 0.10 + rack travel mm : -8	
Rated speed rpm : 1050 Rated speed rpm : 123 guide sleeve Tolerance 1/min : +-	
travel mm : 6.00	• •
Tolerance mm : + 0.10 + rack travel mm : -11 + Tolerance mm : +- 0	
Rated speed rpm : 391 Rated speed rpm : 135	

LOW IDLE	
control lever position degree tolerance degree	: 252.0 : +- 4.0
Testing:	
Rated speed rpm rack travel mm Tolerance mm	: 275 · -6.20 : +- 0.10
rack travel mm Rated speed rpm Tolerance 1/min	: -10.50 : 385 : +- 20
Rated speed rpm	: 200
CRT mm min.	: < -5.00
TORQUE CONTROL	
Rated speed rpm	: 600
Rated speed rpm Tolerance mm	: 1050 : + 0.10
ANEROID/ALTITUDE COMPENSATOR TEST	<u></u>
SETTING	
Rated speed rpm Pressure hPa	: 500 : 1000
MEASUREMENT	
Pressure hPa Rated speed rpm rack travel mm Tolerance mm	: - : 500 : -1.50 : +- 0.20
Rated speed rpm	: 500
Pressure hPa rack travel mm Tolerance mm	: 320 : -0.45 : + 0.15
Pressure hPa rack travel mm Tolerance mm	: 160 : −1.20 : ← 0.05

Rated speed rpm Rated speed rpm	: > 100 : < 195
Check speed 1/min Check speed 1/min	: > 80 : < 215
FUEL DELIVERY CHA	ARACTERISTICS
Aneroid pressure hPa Rated speed rpm Del. quantity cm3/1000 strokes cm3/1000 strokes Check tolerance cm3/1000s. Aneroid pressure hPa	: +- 3.0 : +- 6.0 : -
Rated speed rpm Del. quantity cm3/1000 strokes cm3/1000 strokes Check tolerance cm3/1000s.	: 500 : 142.0 : + 1.0 : + 4.0
BREAKAWAY	
Rack travel in m Rated speed rpm Tolerance 1/min	: 1120
STARTING FUEL DEL	
STARTING FUEL DEL Rated speed rpm Del. quantity cm3/1000 strokes cm3/1000 strokes Check tolerance cm3/1000s.	
Rated speed rpm Del. quantity cm3/1000 strokes cm3/1000 strokes Check tolerance	IVERY : 100 : 165.0 : +- 15.0

START CUT-OUT

Spreed cm3/1000 strokes : 8.0

Check tolerance cm3/1000s. : 12.0

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

: 22.10.96 Edition Test oil : ISO 4113

Combination No. : 0 402 946 028

Injection pump

Pump designation : PES6P120A320RS8047 EP type number : 0 412 926 029

Governor

Governer design. : RQV275...1175PA1312

: -1K

: 0 421 815 965 Governer no.

Cust. part No. : CCEP 5161 66-245

Customer-spec. information

Customer : RENAULT V.I. : MIDR 060226 M71 Motor : 158.0

Power KW

TEST BENCH REQUIREMENTS

Inlet line : 3.1

Test oil inlet

temp. °C : 40
Tolerance °C : + 2.0 temp. °C 40

Overflow valve : 2 417 413 078

Inlet press. bar : Tolerance bar : + 0.1

Overflow quantity

: 140 min. L/h min. l/h : 140 Tolerance l/h : +- 20.0

Test nozzle holde

: 1 688 901 105 assembly

Opening pressure

: 208.5 bar Tolerance bar : + 1.5 Test lines : 1 680 750 089

Outside diameter : 8.0

x inside diameter : x length mm : 600

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values _____

BEGINNING OF DELIVERY

Test pressure bar : Tolerance bar : + 1.0

Prestroke mm : 5.25 Tolerance mm : + 0.05

Check

: + 0.10 tolerance mm

Rack travel in mm: 11.00 Tolerance mm : \leftarrow 0.50

Firing order : 1-5-3-6-2-

: 0-60-120-180-240 Phasing

: -300

Tolerance : +- 0.30

Check

tolerance *NW : +- 0.50

Start of delivery mark

*NW after s.o.d. : -0.70

: +- 0.50 Tolerance

Check

tolerance $^{\circ}NW$: +- 0.75

Barrel no. : 1

Beginning of delivery differende

betw. rack trav.

21.00

and maximum rack

: 19.50 travel

Difference * CS : 3.00	Detail and any 207
	+ Rated speed rpm : 893 + guide sleeve
	- travel mm : 6.60
CRT ZERO POSITION	Tolerance mm : + 0.25
	Rated speed rpm : 560
Rack travel in mm: 13.30	+ guide sleeve
Tolerance ma : +- 0.05	+ travel mm : 4.01
Total and a second	travel mm : 4.01 Tolerance mm : +- 0.25
BASIC SETTING	- + Rated speed rpm : 1650
DASIC SETTING	+ guide sleeve
Rated speed rpm : 1175	+ travel mm : 13.50
nated speed (pill : 1115	+ Tolerance mm : + 0.50
Del. quantity	10001 01100 11111
cm3/1000 strokes : 269.0	
	GUIDE SLEEVE POSITION
cm3/1000 strokes : +- 1.0	
	Rated speed rpm : 1420
Check tolerance	-
cm3/1000s. : + 4.0	Rack travel in mm: 12.20
	+ Tolerance mm : + 2.00
Spreed	
cm3/1000 strokes : 5.0	
	FULL LOAD DELIVERY AT FULL LOAD STOP
Check tolerance	
cm3/1000s. : 9.0	+ Rated speed rpm : 1175
	+ Aneroid pressure
Rated speed rpm : 275	+ hPa : 1600
	+ Del. quantity
	- cm3/1000 strokes : 269.0
Rack travel in mm: -7.20	+ cm3/1000 strokes : + 1.0
Tolerance mm : + 0.10	+ Check tolerance
Del. quantity	+ cm3/1000s. : + 4.0
cm3/1000 strokes : 40.0	+ Spreed
cm3/1000 strokes : +- 2.0	+ cm3/1000 strokes : 5.0
Check tolerance	† Check tolerance
cm3/1000s. : +- 6.0	+ cm3/1000s. : 9.0
Spreed	}
cm3/1000 strokes : 8.0	+
Check tolerance	<u> </u>
cm3/1000s. : 12.0	+ CONTROL LEVER
	+
	+ control lever
(B) SETTING OF INJECTION PUMP	+ position degree : 294.0
WITH GOVERNOR	+ tolerance degree : +- 4.0
	+
	+ RATED SPEED
GUIDE SLEEVE TRAVEL	†
	+ rack travel mm : -1.00
Rated speed rpm : 275	+ Rated speed rpm : 1255
guide sleeve	+ Tolerance 1/min : +- 15
travel mm : 0.98	†
Tolerance mm : + 0.20	+ rack travel mm : -9.20
	+ Rated speed rpm : 1431
Rated speed rpm : 1270	+ Tolerance 1/min : +- 5
guide sleeve	+
travel mm : 9.30	+ rack travel mm : −12.85
Tolerance mm : +- 0.15	+ Tolerance mm : +- 0.50
FO /	

Rated speed rpm	: 1550	+ rack travel mm : -2.40 + Tolerance mm : + 0.05
LOW IDLE		START CUT-OUT
control lever		+ Rated speed rpm : > 175 + Rated speed rpm : < 240
position degree tolerance degree	: 243.0 : +- 4.0	Check
Testing:		speed 1/min : > 155 Check
Rated speed rpm	: 275	+ speed 1/min : < 260
rack travel mm Tolerance mm	: -7.20 : +- 0.10	FUEL DELIVERY CHARACTERISTICS
Rated speed rpm	: 200	Aneroid pressure
CRT mm max.	: > -6.50	hPa : 1600 Rated speed rpm : 650 Del. quantity
Rated speed rpm	: 390	cm3/1000 strokes : 254.0 cm3/1000 strokes : + 3.0
TORQUE CONTROL		
Rated speed rpm	: 1175	Aneroid pressure hPa : -
Rated speed rpm rack travel mm	: -1.75	Rated speed rpm : 500 Del. quantity
Tolerance mm	: +- 0.10	cm3/1000 strokes : 142.0 cm3/1000 strokes : + 1.0
Rated speed rpm rack travel mm Tolerance mm	: 350 : −3.00 : ← 0.25	Check tolerance cm3/1000s. : + 4.0
ANEROID/ALTITUDE COMPENSATOR TEST		BREAKAWAY
SETTING		+ Rack travel in mm : -1.00 + Rated speed rpm : 1255 + Tolerance 1/min : +- 15
Rated speed rpm	: 1175	‡
Pressure hPa MEASUREMENT	: 1600	STARTING FUEL DELIVERY
Pressure hPa	: -	Rated speed rpm : 100 Del. quantity
Rated speed rpm rack travel mm		- cm3/1000 strokes : 87.0 - cm3/1000 strokes : + 10.0
Tolerance mm	: +- 0.20	+ Check tolerance + cm3/1000s. : + 14.0
Rated speed rpm		‡
Pressure hPa rack travel mm Tolerance mm	: 320 : -4.00 : +- 0.20	LOW IDLE
Pressure hPa	: 560	+ Rated speed rpm : 275

Del. quantity		
cm3/1000 strokes	:	40.0
cm3/1000 strokes	: +-	2.0
Check tolerance		
cm3/1000s.	: +-	6.0
Spreed		
cm3/1000 strokes	:	8.0
Check tolerance		
cm3/1000s.	:	12.0

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

Edition Test oil

: 30.10.96 : 30.10.70 : ISO 4113

Combination No. : 0 401 856 160

Injection pump

Pump designation : PE6P110A721RS369 EP type number : 0 411 816 121

Governor

Governer design. : RQV250...1100PA1138

Governer no. : 0 421 814 090

Cust. part No. :

Customer-spec. information Customer : HAEP : H61.G05 Motor Power KW : 162.0

TEST BENCH REQUIREMENTS

Inlet line : 4.2

Test oil inlet

temp. °C Tolerance °C : +- 2.0

Overflow valve : 1 417 413 025

Inlet press. bar : 1.5
Tolerance bar : + 0.1

Test nozzle holde

: 0 681 343 009 assembly

Opening pressure

: 173.5 bar Tolerance bar : + 1.5

Test Lines : 1 680 750 089

Outside diameter : 8.0

x inside diameter: 3.0 x length mm : 600

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values _____

BEGINNING OF DELIVERY

Test pressure bar : 26.0 Tolerance bar : + 1.0

Prestroke mm : 2.85 Tolerance mm : + 0.05

Check

: +- 0.10 tolerance mm

Rack travel in mm : 10.50 Tolerance mm : + 1.50

Firing order : 1-5-3-6-2-

: 0-60-120-180-240 Phasing

: -300

Tolerance : +- 0.30

Check

tolerance *NW : +- 0.50

Start of delivery mark

Tolerance : \leftarrow 0.10

Check

tolerance °NW : +- 0.75

Barrel no. : 1

BASIC SETTING

Rated speed rpm . 1100

Rack Cravel in mm : 13.75 Toterance mm : \leftarrow 0.05

G01

Del. quantity		+
cm3/1000 strokes	: 126.0	+ Rated speed rpm : 440
		duide sleeve
cm3/1000 strokes	· + 10	+ travel mm : 3.24
cilibritoco ser ones	• • • • • • • • • • • • • • • • • • • •	+ Tolerance mm : +- 0.25
Charle talanana		T Total affice likil . 1- 0.25
Check tolerance		T 2
cm3/1000s.	: +- 4.0	+ Rated speed rpm : 1430
		+ guide sleeve
Spreed		+ travel mm : 11.50
cm3/1000 strokes	: 4.0	+ Tolerance mm : + 0.50
	· · · · · ·	1
Check tolerance		
cm3/1000s.	: 8.0	↓ GUIDE SLEEVE POSITION
(110) 10003.	. 0.0	T GOIDE SELEVE FOSITION
Data da a a a a da a a a	. 250	T Batad annual man 1225
Rated speed rpm	: 250	+ Rated speed rpm : 1225
		†
		+ Rack travel in mm : 12.70
Rack travel in m		+ Tolerance mm : + 1.30
Tolerance mm		+
Del. quantity		
cm3/1000 strokes	: 21.0	FULL LOAD DELIVERY AT FULL LOAD STOP
cm3/1000 strokes		T TOLE LOAD DELIVERY AT TOLE LOAD STOP
		1400
Check tolerance		+ Rated speed rpm : 1100
cm3/1000s.	: +- 6.0	+ Aneroid pressure
Spreed		+ hPa : -
cm3/1000 strokes	: 4.5	+ Del. quantity
Check tolerance		+ cm3/1000 strokes : 126.0
cm3/1000s.	: 7.0	+ cm3/1000 strokes : + 1.0
CIII.27 (1868)		+ Check tolerance
		- cm3/1000s. : +- 4.0
		1 0
(B) SETTING OF I	NJECTION PUMP	+ Spreed
(B) SETTING OF IN	NJECTION PUMP	+ cm3/1000 strokes : 4.0
	NJECTION PUMP	cm3/1000 strokes : 4.0 Check tolerance
	NJECTION PUMP	+ cm3/1000 strokes : 4.0
		cm3/1000 strokes : 4.0 Check tolerance
WITH GOVERNOR		cm3/1000 strokes : 4.0 Check tolerance
WITH GOVERNOR GUIDE SLEEVE TRAN	/EL	cm3/1000 strokes : 4.0 Check tolerance
GUIDE SLEEVE TRAN	/EL	- cm3/1000 strokes : 4.0 - Check tolerance - cm3/1000s. : 8.0
GUIDE SLEEVE TRAN	/EL : 250	cm3/1000 strokes : 4.0 Check tolerance
GUIDE SLEEVE TRAV Rated speed rpm guide sleeve travel mm	/EL : 250 : 1.40	cm3/1000 strokes : 4.0 Check tolerance cm3/1000s. : 8.0
GUIDE SLEEVE TRAN	/EL : 250	cm3/1000 strokes : 4.0 Check tolerance cm3/1000s. : 8.0 CONTROL LEVER control lever
GUIDE SLEEVE TRAV Rated speed rpm guide sleeve travel mm Tolerance mm	/EL : 250 : 1.40 : ← 0.15	cm3/1000 strokes : 4.0 Check tolerance cm3/1000s. : 8.0 CONTROL LEVER control lever position degree : 49.0
GUIDE SLEEVE TRAN Rated speed rpm guide sleeve travel mm Tolerance mm Rated speed rpm	/EL : 250 : 1.40 : ← 0.15	cm3/1000 strokes : 4.0 Check tolerance cm3/1000s. : 8.0 CONTROL LEVER control lever
GUIDE SLEEVE TRAN Rated speed rpm guide sleeve travel mm Tolerance mm Rated speed rpm guide sleeve	/EL : 250 : 1.40 : ← 0.15 : 1157	cm3/1000 strokes : 4.0 Check tolerance cm3/1000s. : 8.0 CONTROL LEVER control lever position degree : 49.0 tolerance degree : 4.0
GUIDE SLEEVE TRAN Rated speed rpm guide sleeve travel mm Tolerance mm Rated speed rpm	/EL : 250 : 1.40 : ← 0.15	cm3/1000 strokes : 4.0 Check tolerance cm3/1000s. : 8.0 CONTROL LEVER control lever position degree : 49.0 tolerance degree : 4.0 control lever
GUIDE SLEEVE TRAN Rated speed rpm guide sleeve travel mm Tolerance mm Rated speed rpm guide sleeve	/EL : 250 : 1.40 : ← 0.15 : 1157	cm3/1000 strokes : 4.0 Check tolerance cm3/1000s. : 8.0 CONTROL LEVER control lever position degree : 49.0 tolerance degree : 4.0
GUIDE SLEEVE TRAN Rated speed rpm guide sleeve travel mm Tolerance mm Rated speed rpm guide sleeve travel mm	/EL : 250 : 1.40 : ← 0.15 : 1157 : 8.43	cm3/1000 strokes : 4.0 Check tolerance cm3/1000s. : 8.0 CONTROL LEVER control lever position degree : 49.0 tolerance degree : + 4.0 control lever position degree : 107.0
GUIDE SLEEVE TRAN Rated speed rpm guide sleeve travel mm Tolerance mm Rated speed rpm guide sleeve travel mm Tolerance mm	/EL : 250 : 1.40 : ← 0.15 : 1157 : 8.43 : ← 0.20	cm3/1000 strokes : 4.0 Check tolerance cm3/1000s. : 8.0 CONTROL LEVER control lever position degree : 49.0 tolerance degree : 4.0 control lever
GUIDE SLEEVE TRAN Rated speed rpm guide sleeve travel mm Tolerance mm Rated speed rpm guide sleeve travel mm Tolerance mm Rated speed rpm Rated speed rpm Rated speed rpm	/EL : 250 : 1.40 : ← 0.15 : 1157 : 8.43 : ← 0.20	cm3/1000 strokes : 4.0 Check tolerance cm3/1000s. : 8.0 CONTROL LEVER control lever position degree : 49.0 tolerance degree : + 4.0 control lever position degree : 107.0 tolerance degree : + 4.0
GUIDE SLEEVE TRAN Rated speed rpm guide sleeve travel mm Tolerance mm Rated speed rpm guide sleeve travel mm Tolerance mm Rated speed rpm guide sleeve travel mm Tolerance mm	/EL : 250 : 1.40 : ← 0.15 : 1157 : 8.43 : ← 0.20 : 765	cm3/1000 strokes : 4.0 Check tolerance cm3/1000s. : 8.0 CONTROL LEVER control lever position degree : 49.0 tolerance degree : + 4.0 control lever position degree : 107.0
GUIDE SLEEVE TRAN Rated speed rpm guide sleeve travel mm Tolerance mm Rated speed rpm guide sleeve travel mm Tolerance mm Rated speed rpm guide sleeve travel mm Tolerance mm	/EL : 250 : 1.40 : ← 0.15 : 1157 : 8.43 : ← 0.20 : 765 : 5.41	cm3/1000 strokes : 4.0 Check tolerance cm3/1000s. : 8.0 CONTROL LEVER control lever position degree : 49.0 tolerance degree : + 4.0 control lever position degree : 107.0 tolerance degree : + 4.0 RATED SPEED
GUIDE SLEEVE TRAN Rated speed rpm guide sleeve travel mm Tolerance mm Rated speed rpm guide sleeve travel mm Tolerance mm Rated speed rpm guide sleeve travel mm Tolerance mm	/EL : 250 : 1.40 : ← 0.15 : 1157 : 8.43 : ← 0.20 : 765	cm3/1000 strokes : 4.0 Check tolerance cm3/1000s. : 8.0 CONTROL LEVER control lever position degree : 49.0 tolerance degree : + 4.0 control lever position degree : 107.0 tolerance degree : + 4.0 RATED SPEED rack travel mm : 12.70
GUIDE SLEEVE TRAN Rated speed rpm guide sleeve travel mm Tolerance mm Rated speed rpm guide sleeve travel mm Tolerance mm Rated speed rpm guide sleeve travel mm Tolerance mm	: 250 : 1.40 : + 0.15 : 1157 : 8.43 : + 0.20 : 765 : 5.41 : + 0.25	cm3/1000 strokes : 4.0 Check tolerance cm3/1000s. : 8.0 CONTROL LEVER control lever position degree : 49.0 tolerance degree : + 4.0 control lever position degree : 107.0 tolerance degree : + 4.0 RATED SPEED rack travel mm : 12.70 Rated speed rpm : 1145
GUIDE SLEEVE TRAN Rated speed rpm guide sleeve travel mm Tolerance mm Rated speed rpm guide sleeve travel mm Tolerance mm Rated speed rpm guide sleeve travel mm Tolerance mm	/EL : 250 : 1.40 : + 0.15 : 1157 : 8.43 : + 0.20 : 765 : 5.41 : + 0.25	cm3/1000 strokes : 4.0 Check tolerance cm3/1000s. : 8.0 CONTROL LEVER control lever position degree : 49.0 tolerance degree : + 4.0 control lever position degree : 107.0 tolerance degree : + 4.0 RATED SPEED rack travel mm : 12.70
GUIDE SLEEVE TRAN Rated speed rpm guide sleeve travel mm Tolerance mm Rated speed rpm guide sleeve travel mm Tolerance mm Rated speed rpm guide sleeve travel mm Tolerance mm Rated speed rpm guide sleeve travel mm Tolerance mm	/EL : 250 : 1.40 : + 0.15 : 1157 : 8.43 : + 0.20 : 765 : 5.41 : + 0.25	cm3/1000 strokes : 4.0 Check tolerance cm3/1000s. : 8.0 CONTROL LEVER control lever position degree : 49.0 tolerance degree : + 4.0 control lever position degree : 107.0 tolerance degree : + 4.0 RATED SPEED rack travel mm : 12.70 Rated speed rpm : 1145
GUIDE SLEEVE TRAN Rated speed rpm guide sleeve travel mm Tolerance mm Rated speed rpm guide sleeve travel mm Tolerance mm Rated speed rpm guide sleeve travel mm Tolerance mm Rated speed rpm guide sleeve travel mm Tolerance mm	/EL : 250 : 1.40 : ← 0.15 : 1157 : 8.43 : ← 0.20 : 765 : 5.41 : ← 0.25 : 316	cm3/1000 strokes : 4.0 Check tolerance cm3/1000s. : 8.0 CONTROL LEVER control lever position degree : 49.0 tolerance degree : + 4.0 control lever position degree : 107.0 tolerance degree : + 4.0 RATED SPEED rack travel mm : 12.70 Rated speed rpm : 1145 Tolerance 1/min : + 5
GUIDE SLEEVE TRAN Rated speed rpm guide sleeve travel mm Tolerance mm Rated speed rpm guide sleeve travel mm Tolerance mm Rated speed rpm guide sleeve travel mm Tolerance mm Rated speed rpm guide sleeve travel mm Tolerance mm	/EL : 250 : 1.40 : ← 0.15 : 1157 : 8.43 : ← 0.20 : 765 : 5.41 : ← 0.25 : 316 : 2.13	cm3/1000 strokes : 4.0 Check tolerance cm3/1000s. : 8.0 CONTROL LEVER control lever position degree : 49.0 tolerance degree : + 4.0 control lever position degree : 40.0 tolerance degree : + 4.0 RATED SPEED rack travel mm : 12.70 Rated speed rpm : 1145 Tolerance 1/min : + 5 rack travel mm : 4.00
GUIDE SLEEVE TRAN Rated speed rpm guide sleeve travel mm Tolerance mm Rated speed rpm guide sleeve travel mm Tolerance mm Rated speed rpm guide sleeve travel mm Tolerance mm Rated speed rpm guide sleeve travel mm Tolerance mm	/EL : 250 : 1.40 : ← 0.15 : 1157 : 8.43 : ← 0.20 : 765 : 5.41 : ← 0.25 : 316	cm3/1000 strokes : 4.0 Check tolerance cm3/1000s. : 8.0 CONTROL LEVER control lever position degree : 49.0 tolerance degree : + 4.0 control lever position degree : 107.0 tolerance degree : + 4.0 RATED SPEED rack travel mm : 12.70 Rated speed rpm : 1145 Tolerance 1/min : + 5 rack travel mm : 4.00 Rated speed rpm : 1275
GUIDE SLEEVE TRAN Rated speed rpm guide sleeve travel mm Tolerance mm Rated speed rpm guide sleeve travel mm Tolerance mm Rated speed rpm guide sleeve travel mm Tolerance mm Rated speed rpm guide sleeve travel mm Tolerance mm Tolerance mm	/EL : 250 : 1.40 : ← 0.15 : 1157 : 8.43 : ← 0.20 : 765 : 5.41 : ← 0.25 : 316 : ← 0.25 :	cm3/1000 strokes : 4.0 Check tolerance cm3/1000s. : 8.0 CONTROL LEVER control lever position degree : 49.0 tolerance degree : + 4.0 control lever position degree : 40.0 tolerance degree : + 4.0 RATED SPEED rack travel mm : 12.70 Rated speed rpm : 1145 Tolerance 1/min : + 5 rack travel mm : 4.00
GUIDE SLEEVE TRAN Rated speed rpm guide sleeve travel mm Tolerance mm Rated speed rpm guide sleeve travel mm Tolerance mm Rated speed rpm guide sleeve travel mm Tolerance mm Rated speed rpm guide sleeve travel mm Tolerance mm Rated speed rpm guide sleeve travel mm Tolerance mm Rated speed rpm guide sleeve travel mm Tolerance mm	/EL : 250 : 1.40 : ← 0.15 : 1157 : 8.43 : ← 0.20 : 765 : 5.41 : ← 0.25 : 316 : ← 0.25 :	cm3/1000 strokes : 4.0 Check tolerance cm3/1000s. : 8.0 CONTROL LEVER control lever position degree : 49.0 tolerance degree : + 4.0 control lever position degree : 107.0 tolerance degree : + 4.0 RATED SPEED rack travel mm : 12.70 Rated speed rpm : 1145 Tolerance 1/min : + 5 rack travel mm : 4.00 Rated speed rpm : 1275 Tolerance 1/min : + 15
GUIDE SLEEVE TRAN Rated speed rpm guide sleeve travel mm Tolerance mm Rated speed rpm guide sleeve travel mm Tolerance mm Rated speed rpm guide sleeve travel mm Tolerance mm Rated speed rpm guide sleeve travel mm Tolerance mm Rated speed rpm guide sleeve travel mm Tolerance mm Rated speed rpm guide sleeve travel mm Tolerance mm	/EL : 250 : 1.40 : ← 0.15 : 1157 : 8.43 : ← 0.20 : 765 : 5.41 : ← 0.25 : 316 : ← 0.25 : 366	cm3/1000 strokes : 4.0 Check tolerance cm3/1000s. : 8.0 CONTROL LEVER control lever position degree : 49.0 tolerance degree : + 4.0 control lever position degree : 107.0 tolerance degree : + 4.0 RATED SPEED rack travel mm : 12.70 Rated speed rpm : 1145 Tolerance 1/min : + 5 rack travel mm : 4.00 Rated speed rpm : 1275 Tolerance 1/min : + 15 rack travel mm : 0.50
GUIDE SLEEVE TRAN Rated speed rpm guide sleeve travel mm Tolerance mm Rated speed rpm guide sleeve travel mm Tolerance mm Rated speed rpm guide sleeve travel mm Tolerance mm Rated speed rpm guide sleeve travel mm Tolerance mm Rated speed rpm guide sleeve travel mm Tolerance mm Rated speed rpm guide sleeve travel mm Tolerance mm	/EL : 250 : 1.40 : ← 0.15 : 1157 : 8.43 : ← 0.20 : 765 : 765 : 5.41 : ← 0.25 : 316 : ← 0.25 : 366 : 2.66	cm3/1000 strokes : 4.0 Check tolerance cm3/1000s. : 8.0 CONTROL LEVER control lever position degree : 49.0 tolerance degree : + 4.0 control lever position degree : 107.0 tolerance degree : + 4.0 RATED SPEED rack travel mm : 12.70 Rated speed rpm : 1145 Tolerance 1/min : + 5 rack travel mm : 4.00 Rated speed rpm : 1275 Tolerance 1/min : + 15 rack travel mm : 0.50 Tolerance mm : 0.50 Tolerance mm : + 0.50
GUIDE SLEEVE TRAN Rated speed rpm guide sleeve travel mm Tolerance mm Rated speed rpm guide sleeve travel mm Tolerance mm Rated speed rpm guide sleeve travel mm Tolerance mm Rated speed rpm guide sleeve travel mm Tolerance mm Rated speed rpm guide sleeve travel mm Tolerance mm Rated speed rpm guide sleeve travel mm Tolerance mm	/EL : 250 : 1.40 : ← 0.15 : 1157 : 8.43 : ← 0.20 : 765 : 5.41 : ← 0.25 : 316 : ← 0.25 : 366	cm3/1000 strokes : 4.0 Check tolerance cm3/1000s. : 8.0 CONTROL LEVER control lever position degree : 49.0 tolerance degree : + 4.0 control lever position degree : 107.0 tolerance degree : + 4.0 RATED SPEED rack travel mm : 12.70 Rated speed rpm : 1145 Tolerance 1/min : + 5 rack travel mm : 4.00 Rated speed rpm : 1275 Tolerance 1/min : + 15 rack travel mm : 0.50

		+ Rated speed rpm	: 500
LOW IDLE		Pressure hPa rack travel mm Tolerance mm	: 13.10
control lever position degree tolerance degree	: 81.0 : +- 4.0	Pressure hPa rack travel mm Tolerance mm	: 14.20
control lever position degree tolerance degree	: 22.0 : +- 4.0	START CUT-OUT	400
Testing:		Rated speed rpm Rated speed rpm	
Rated speed rpm rack travel mm Tolerance mm	: 250 : 9.40 : ← 0.10	Check speed 1/min Check	
Rated speed rpm	: 150	+ speed 1/min	: < 190
CRT mm min.	: > 12.00	FUEL DELIVERY CH	ARACTERISTICS
Rated speed rpm	: 270	Aneroid pressure	: -
TORQUE CONTROL		Rated speed rpm Del. quantity	
Rated speed rpm rack travel mm Tolerance mm	: 14.50	cm3/1000 strokes cm3/1000 strokes Check tolerance cm3/1000s.	: ← 2.0
Rated speed rpm rack travel mm Tolerance mm	: 890 : 14.40 : ← 0.10	Aneroid pressure hPa Rated speed rpm	700
Rated speed rpm rack travel mm Tolerance mm	: 13.95	Del. quantity cm3/1000 strokes cm3/1000 strokes Check tolerance cm3/1000s.	: 99.0 : + 1.0
ANEROID/ALTITUDE COMPENSATOR TEST		BREAKAWAY	
SETTING		Rack travel in m Rated speed rpm	m: 12.70 : 1145
Rated speed rpm Pressure hPa rack travel mm Tolerance mm	: 1500 : 14.50	Tolerance 1/min	; +- 5
MEASUREMENT	0.10	STARTING FUEL DE	LIVERY
Pressure hPa Rated speed rpm rack travel mm		Rated speed rpm rack travel mm Tolerance mm Del. quantity	: 16.20 : + 0.50
Tolerance mm		cm3/1000 strokes cm3/1000 strokes	: 125.0 : + 10.0

LOW IDLE

Rated speed rpm : 250

Del. quantity cm3/1000 strokes : 21.0 cm3/1000 strokes : \leftarrow 3.0

Check tolerance

cm3/1000s. : +- 6.0

Spreed

cm3/1000 strokes : 4.5 Check tolerance

7.0 cm3/1000s.

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

: 30.10.96 Edition : ISO 4113 Test oil

Combination No. : 0 401 876 777

Injection pump

Pump designation : PE6P120B320RS3261 EP type number : 0 411 826 821

Governor

Governer design. : RSV250...1100P0A655

Governer no. : 0 421 833 573

Cust. part No. : 3826513 PO1 v.10.96

Customer-spec. information Customer : PENTA : TAMD 102 A Motor : 294.0 Power KW

TEST BENCH REQUIREMENTS

: 3.2 Inlet line

Vibration damper

(RoBo diaphragm) : 4.1

Test oil inlet

temp. °C Tolerance °C : +- 2.0

Overflow valve : 2 417 413 077

Inlet press. bar : 1.5

Test nozzle holde

: 1 688 901 019 assembly

Opening pressure

: 208.5 bar Tolerance bar : + 1.5 Test Lines : 1 680 750 067

Outside diameter : 6.0

x inside diameter : x Length mm : 1000

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values _____

BEGINNING OF DELIVERY

Test pressure bar : 26.0 Tolerance bar : + 1.0

Prestroke mm : 3.45
Tolerance mm : + 0.05

Check

: +- 0.10 tolerance mm

Rack travel in mm : 8.10 Tolerance mm: $\leftarrow 0.50$

Firing order : 1-5-3-6-2-

Phasing : 0-60-120-180-240

: -300

: +- 0.30 Tolerance

Check

tolerance *NW : +- 0.50

Start of delivery mark

Barrel no. : 1

BASIC SETTING

Rated speed rpm : 700

Rack travel in mm: 12.15

Tolerance mm : \leftarrow 0.05

Del. quantity cm3/1000 strokes : 260.0	- Check tolerance - cm3/1000s. : 9.0
cm3/1000 strokes : +- 1.0	
Check tolerance cm3/1000s. : + 4.0	- CONTROL LEVER - control lever
Spreed cm3/1000 strokes : 5.0	- position degree : 44.0 - tolerance degree : +- 4.0
Check tolerance cm3/1000s. : 9.0	- control lever - position degree : 94.0 - tolerance degree : +- 4.0
Rated speed rpm : 250	- RATED SPEED
Rack travel in mm : 6.50 Tolerance mm : +- 0.10 Del. quantity	rack travel mm : 11.10 - Rated speed rpm : 1145 - Tolerance 1/min : +- 5
cm3/1000 strokes : 23.0 cm3/1000 strokes : + 3.0 check tolerance cm3/1000s. : + 6.0	- rack travel mm : 4.00 - Rated speed rpm : 1210 - Tolerance 1/min : +- 15
Spreed cm3/1000 strokes : 5.0 Check tolerance	- - rack travel mm : 0.85
cm3/1000s. : 7.0	- Tolerance mm : +- 0.55 - Rated speed rpm : 1350 -
(B) SETTING OF INJECTION PUMP	- rack travel mm : 4.00 - Rated speed rpm : 1220
WITH GOVERNOR	· · · · · · · · · · · · · · · · · · ·
	LOW IDLE
GUIDE SLEEVE POSITION	LOW IDLE
	LOW IDLE control lever
GUIDE SLEEVE POSITION Rated speed rpm : 800 Rack travel in mm : 0.50	LOW IDLE control lever
GUIDE SLEEVE POSITION Rated speed rpm : 800 Rack travel in mm : 0.50 Tolerance mm : + 0.20 governor spring	LOW IDLE control lever position degree : 69.0 tolerance degree : + 4.0 control lever position degree : 19.0
GUIDE SLEEVE POSITION Rated speed rpm : 800 Rack travel in mm : 0.50 Tolerance mm : + 0.20	control lever position degree : 69.0 tolerance degree : + 4.0 control lever position degree : 19.0 tolerance degree : + 4.0
GUIDE SLEEVE POSITION Rated speed rpm : 800 Rack travel in mm : 0.50 Tolerance mm : + 0.20 governor spring pre-tension click setting x : 2.25	LOW IDLE control lever position degree : 69.0 tolerance degree : + 4.0 control lever position degree : 19.0 tolerance degree : + 4.0 Setting point w/out bumper spring
GUIDE SLEEVE POSITION Rated speed rpm : 800 Rack travel in mm : 0.50 Tolerance mm : + 0.20 governor spring pre-tension click setting x : 2.25 FULL LOAD DELIVERY AT FULL LOAD STOP	control lever position degree : 69.0 tolerance degree : + 4.0 control lever position degree : 19.0 tolerance degree : + 4.0
GUIDE SLEEVE POSITION Rated speed rpm : 800 Rack travel in mm : 0.50 Tolerance mm : + 0.20 governor spring pre-tension click setting x : 2.25 FULL LOAD DELIVERY AT FULL LOAD STOP Rated speed rpm : 700 Aneroid pressure	LOW IDLE control lever position degree : 69.0 tolerance degree : + 4.0 control lever position degree : 19.0 tolerance degree : + 4.0 Setting point w/out bumper spring Rated speed rpm : 250
GUIDE SLEEVE POSITION Rated speed rpm : 800 Rack travel in mm : 0.50 Tolerance mm : + 0.20 governor spring pre-tension click setting x : 2.25 FULL LOAD DELIVERY AT FULL LOAD STOP Rated speed rpm : 700 Aneroid pressure hPa : 1500	LOW IDLE control lever position degree : 69.0 tolerance degree : + 4.0 control lever position degree : 19.0 tolerance degree : + 4.0 Setting point w/out bumper spring Rated speed rpm : 250 rack travel mm : 6.00 Testing:
GUIDE SLEEVE POSITION Rated speed rpm : 800 Rack travel in mm : 0.50 Tolerance mm : + 0.20 governor spring pre-tension click setting x : 2.25 FULL LOAD DELIVERY AT FULL LOAD STOP Rated speed rpm : 700 Aneroid pressure hPa : 1500 Del. quantity cm3/1000 strokes : 260.0 cm3/1000 strokes : + 1.0	control lever position degree : 69.0 tolerance degree : + 4.0 control lever position degree : 19.0 tolerance degree : + 4.0 Setting point w/out bumper spring Rated speed rpm : 250 rack travel mm : 6.00
GUIDE SLEEVE POSITION Rated speed rpm : 800 Rack travel in mm : 0.50 Tolerance mm : + 0.20 governor spring pre-tension click setting x : 2.25 FULL LOAD DELIVERY AT FULL LOAD STOP Rated speed rpm : 700 Aneroid pressure hPa : 1500 Del. quantity cm3/1000 strokes : 260.0 cm3/1000 strokes : + 1.0 Check tolerance cm3/1000s. : + 4.0	LOW IDLE control lever position degree : 69.0 tolerance degree : + 4.0 control lever position degree : 19.0 tolerance degree : + 4.0 Setting point w/out bumper spring Rated speed rpm : 250 rack travel mm : 6.00 Testing: Rated speed rpm : 250 rack travel mm : 6.50 Tolerance mm : + 0.10
GUIDE SLEEVE POSITION Rated speed rpm : 800 Rack travel in mm : 0.50 Tolerance mm : + 0.20 governor spring pre-tension click setting x : 2.25 FULL LOAD DELIVERY AT FULL LOAD STOP Rated speed rpm : 700 Aneroid pressure hPa : 1500 Del. quantity cm3/1000 strokes : 260.0 cm3/1000 strokes : + 1.0 Check tolerance	LOW IDLE control lever position degree : 69.0 tolerance degree : + 4.0 control lever position degree : 19.0 tolerance degree : + 4.0 Setting point w/out bumper spring Rated speed rpm : 250 rack travel mm : 6.00 Testing: Rated speed rpm : 250 rack travel mm : 6.50

rack travel mm : 12.15 Tolerance mm : + 0.05

ANEROID/ALTITUDE COMPENSATOR TEST

SETTING

Rated speed rpm : 500
Pressure hPa : 1500
rack travel mm : 12.15
Tolerance mm : + 0.05

MEASUREMENT

Pressure hPa : Rated speed rpm : 500
rack travel mm : 8.10
Tolerance mm : + 0.10

Rated speed rpm : 500

Pressure hPa : 900 rack travel mm : 3.60 Tolerance mm : + 0.10

Pressure hPa : 140 rack travel mm : 0.25 Tolerance mm : + 0.05

FUEL DELIVERY CHARACTERISTICS

Aneroid pressure

hPa : Rated speed rpm : 700
Del. quantity
cm3/1000 strokes : 140.0
Check tolerance

cm3/1000s. : +- 4.0

BREAKAWAY

Rack travel in mm : 11.10
Rated speed rpm : 1145
Tolerance 1/min : + 5

STARTING FUEL DELIVERY

Rated speed rpm : 100 rack travel mm : 17.00

G07

Tolerance mm : \leftarrow 1.00

LOW IDLE

Rated speed rpm : 250 Del. quantity cm3/1000 strokes : 23.0 cm3/1000 strokes : \leftarrow 3.0 Check tolerance cm3/1000s. : \leftarrow 6.0 Spreed cm3/1000 strokes : 5.0

Check tolerance cm3/1000s. : 7.0

Note remarks

Refer to Service Info for test and adjustment instructions.
See microcard(s) W400/...

Edition : 30.10.96 Test oil : ISO 4113

Combination No. : 0 402 646 651

Injection pump

Pump designation : PE6P120A320LS7357 EP type number : 0 412 626 934

Governor

Governer design. : RQV325...975PA1190K

Governer no. : 0 421 815 450

Cust. part No. :

Customer—spec. information Customer : LIAZ Motor : M640T Power KW : 280.0

TEST BENCH REQUIREMENTS

Inlet line : 3.1

Test oil inlet

temp. °C : 40
Tolerance °C : +- 2.0

Overflow valve : 1 417 413 025

Inlet press. bar : 1.5 Tolerance bar : + 0.1

Test nozzle holde

assembly : 1 688 901 105

Opening pressure

bar : 208.5 Tolerance bar : + 1.5

Test lines : 1 680 750 089

Outside diameter: 8.0

x inside diameter: 3.0 x length mm : 600

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values _____

BEGINNING OF DELIVERY

Test pressure bar : 26.0 Tolerance bar : + 1.0

Prestroke mm : 4.80
Tolerance mm : + 0.05
Check

tolerance mm : + 0.10

Rack travel in mm : 12.00 Tolerance mm : + 1.50

Firing order : 1-5- 3- 6- 2-

: 4

Phasing : 0-60-120-180-240

: -300 Tolerance : +- 0.30

Check

tolerance *NW : + 0.50

Start of delivery mark

Tolerance : \leftarrow 0.10

Check

tolerance °NW : +- 0.75

Barrel no. : 1

BASIC SETTING

Rated speed rpm : 725

Rack travel in mm : 14.40 Tolerance mm : +- 0.05

Del. quantity

cm3/1000 strokes : 267.0

GO8

cm3/1000 strokes : +- 1.0	+ Tolerance mm : + 0.50
Check tolerance cm3/1000s. : + 4.0	GUIDE SLEEVE POSITION
Spreed cm3/1000 strokes : 5.0	Rated speed rpm : 1070
Check tolerance cm3/1000s. : 9.0	Rack travel in mm: 14.10 Tolerance mm: + 1.50
Rack travel in mm : 4.10 Tolerance mm : + 0.30	FULL LOAD DELIVERY AT FULL LOAD STOP Rated speed rpm : 725 Aneroid pressure
(B) SETTING OF INJECTION PUMP WITH GOVERNOR	hPa : - Del. quantity cm3/1000 strokes : 267.0 cm3/1000 strokes : + 1.0
GUIDE SLEEVE TRAVEL	+ Check tolerance + cm3/1000s. : + 4.0 + Spreed
Rated speed rpm : 325 guide sleeve travel mm : 1.43 Tolerance mm : + 0.15	cm3/1000 strokes : 5.0 Check tolerance cm3/1000s. : 9.0
Rated speed rpm : 1033 guide sleeve travel mm : 10.20 Tolerance mm : + 0.20	CONTROL LEVER control lever
Rated speed rpm : 620 guide sleeve	position degree : 70.0 tolerance degree : + 4.0
travel mm : 5.01 Tolerance mm : + 0.25	control leverposition degree : 122.0tolerance degree : +- 4.0
Rated speed rpm : 370 guide sleeve travel mm : 2.00	+ RATED SPEED
Tolerance mm : + 0.25 Rated speed rpm : 420	+ rack travel mm : 14.10 + Rated speed rpm : 1020 + Tolerance 1/min : +- 5
guide sleeve : 2.64	rack travel mm : 4.00
Tolerance mm : + 0.25 Rated speed rpm : 460	Rated speed rpm : 1125 + Tolerance 1/min : +- 15 +
guide sleeve travel mm : 3.02 Tolerance mm : +- 0.25	rack travel mm : 0.50 Tolerance mm : +- 0.50 Rated speed rpm : 1200
Rated speed rpm : 1141	
guide sleeve travel mm : 12.00 Tolerance mm : +- 0.25	LOW IDLE
Rated speed rpm : 1240 guide sleeve	control lever position degree : 67.0
travel mm : 13.50	+ tolerance degree : +- 4.0

control lever position degree tolerance degree	: 14.0 : + 4.0
Testing:	
Rated speed rpm rack travel mm Tolerance mm	: 325 : 4.10 : +- 0.30
Rated speed rpm	: 225
CRT mm min.	: > 5.30
Rated speed rpm	: 350
TORQUE CONTROL	
Rated speed rpm rack travel mm Tolerance mm	: 725 : 14.40 : +- 0.05
Rated speed rpm rack travel mm Tolerance mm	: 975 : 15.15 : + 0.20
Rated speed rpm rack travel mm Tolerance mm	: 600 : 13.10 : + 0.20
ANEROID/ALTITUDE COMPENSATOR TEST	
SETTING	
Rated speed rpm Pressure hPa rack travel mm Tolerance mm	: 975 : 1500 : 15.15 : + 0.05
MEASUREMENT	
Pressure hPa Rated speed rpm rack travel mm Tolerance mm	: - : 975 : 9.40 : + 0.10
Rated speed rpm	: 975
	• ,,,,
Pressure hPa rack travel mm Tolerance mm	: 320 : 11.00 : + 0.25
rack travel mm	: 320 : 11.00

START CUT-OUT		
Dated aread are	: > 100	
Rated speed rpm		
Rated speed rpm	: < 245	
Check		
speed 1/min	: > 80	
Check		
speed 1/min	: < 265	
speed min	. \ 203	
FUEL DELIVERY CHA	ARACTERISTICS	
Aneroid pressure		
hPa	: -	
Rated speed rpm	: 975	
Del. quantity	. ,,,,	
cm3/1000 strokes	: 262.0	
cm3/1000 strokes	: +- 3.0	
Check tolerance		
cm3/1000s.	: +- 6.0	
Aneroid pressure		
hPa	: -	
Rated speed rpm	· : 500	
Del. quantity	. 500	
cm3/1000 strokes	: 141.0	
cm3/1000 strokes	: ← 2.0	
Check tolerance		
cm3/1000s.	: +- 4.0	
BREAKAWAY		
Rack travel in mm	14.10	
Rated speed rpm	: 1020	
Tolerance 1/min	: +- 5	
	-	
STARTING FUEL DEL	IVERY	
Rated speed rpm	: 100	
Del. quantity		
cm3/1000 strokes	: 300.0	
cm3/1000 strokes	: + 20.0	
Check tolerance		
cm3/1000s.	: +- 24.0	

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

: 24.10.96 Edition Test oil : 180 4113

Combination No. : 0 402 646 744AC

Injection pump

Pump designation : PE6P120A320LS7872 EP type number : 0 412 626 912

Governor

Governer design. : RQV300...1050PA1259

Governer no. : 0 421 814 169

Cust. part No. : 04221532 KY 0165-17

Customer-spec. information

Customer : KHD

: BF6M1015C Motor : 270.0 Power KW

TEST BENCH REQUIREMENTS

Inlet line : 3.2

Test oil inlet

temp. °C Tolerance °C

Overflow valve : 1 417 413 047

Inlet press. bar : 2.0
Tolerance bar : + 0.1

Overflow quantity

min. L/h : 195 Tolerance L/h : +- 10.0

Test nozzle holde

: 1 688 901 105 assembly

Opening pressure

: 208.5 bar Tolerance bar : +- 1.5 Test lines : 1 680 750 075

Outside diameter : 8.0

x inside diameter: x Length mm : 1000

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values _____

BEGINNING OF DELIVERY

Test pressure bar : 26.0 Tolerance bar : + 1.0

4.05 Prestroke mm : +- 0.05 Tolerance mm

Check

: ← 0.10 tolerance mm

Rack travel in mm : 10.50 : +- 1.50 Tolerance mm

Firing order : 1-6-3-5-2-

Phasing : 0-60-120-180-240

: -300

Tolerance : +- 0.30

Check

: +- 0.50 tolerance *NW

Start of delivery mark

Tolerance : \leftarrow 0.50

Check

tolerance *NW : +- 0.75

: 1 Barrel no.

BASIC SETTING

Rated speed rpm : 1050

Rack travel in mm: 11.20

Tolerance mm : + 0.05

Del. quantity		. Tolerance mm	: ← 0.25
cm3/1000 strokes	: 275.0	Rated speed rp	m : 1230
cm3/1000 strokes	: + 1.0	travel mm Tolerance mm	: 13.50 : + 0.50
Check tolerance		+	
cm3/1000s.	: +- 4.0	GUIDE SLEEVE PO	DSITION
Spreed cm3/1000 strokes	: 6.0	Rated speed rp	n : 1130
Check tolerance cm3/1000s.	: 9.0	Rack travel in Tolerance mm	
Rated speed rpm	: 300	FULL LOAD DELIV	VERY AT FULL LO
Rack travel in mm		Poted speed pro	n : 1050
Tolerance mm	: + 0.10	+ Rated speed rpm + Aneroid pressur	
Del. quantity		+ hPa	: 1000
cm3/1000 strokes		+ Del. quantity	075.6
cm3/1000 strokes Check tolerance	: +- 3.0	+ cm3/1000 stroke + cm3/1000 stroke	
cm3/1000s.	: + 6.0	+ Check tolerance	
Spreed		+ cm3/1000s.	: + 4.0
cm3/1000 strokes	: 8.0	Spreed	
Check tolerance	: 12.0	+ cm3/1000 stroke + Check tolerance	
cm3/1000s.	: 12.0	+ cm3/1000s.	; ; 9.0
(B) SETTING OF IN. WITH GOVERNOR	JECTION PUMP	CONTROL LEVER	
GUIDE SLEEVE TRAVE	EL	t control lever	
.	700	+ position degree	
Rated speed rpm guide sleeve	: 300	tolerance degre	ee : +- 4.0
travel mm	: 1.24	RATED SPEED	
Tolerance mm	: +- 0.20	+	40.00
Datad anacd ann	: 1098	+ rack travel mm	
Rated speed rpm guide sleeve	: 1098	+ Rated speed rpm + Tolerance 1/min	
travel mm	: 10.02	+	
Tolerance mm	: +- 0.15	+ rack travel mm	
Do A call and an all manages	. 9/0	+ Rated speed rpm	
Rated speed rpm guide sleeve	: 860	† Tolerance 1/mir	1 : +- 15
travel mm	: 5.59	rack travel mm	: 0.50
Tolerance mm	: +- 0.25	† Tolerance mm	: ← 0.50
Rated speed rpm	: 560	+ Rated speed rpm	n : 1280
guide sleeve	: 3.24	İ	
travel mm Tolerance mm	: 5.24 : + 0.25	LOW IDLE	
. Occiding the		+	
Rated speed rpm	: 1154	+	
guide sleeve travel mm	: 12.00	<pre>+ control lever + position degree</pre>	: 75.0
		•	

LOAD STOP

tolerance degree	
	: +- 4.0
Testing:	
Rated speed rpm rack travel mm Tolerance mm	: 300 : 4.60 : + 0.10
Rated speed rpm	: 200
CRT mm min.	: > 6.10
Rated speed rpm	: 345
TORQUE CONTROL	
Rated speed rpm rack travel mm Tolerance mm	: 1050 : 11.20 : + 0.05
ANEROID/ALTITUDE COMPENSATOR TEST	
SETTING	
Rated speed rpm Pressure hPa rack travel mm Tolerance mm	: 400 : 1000 : 11.25 : + 0.05
MEASUREMENT	
Pressure hPa Rated speed rpm rack travel mm Tolerance mm	: - 400 : 8.10 : + 0.20
Rated speed rpm	: 400
Pressure hPa rack travel mm Tolerance mm	: 400 : 9.70 : ← 0.10
Pressure hPa rack travel mm	: 600 : 10.80 : ← 0.05

cm3/1000 strokes : + 1.0 Check tolerance cm3/1000s.: ← 4.0 BREAKAWAY Rack travel in mm: 10.20 Rated speed rpm : 1085
Tolerance 1/min : +- 5 STARTING FUEL DELIVERY Rated speed rpm : 100 rack travel mm : 8.10 Tolerance mm : + 0.30 Del. quantity cm3/1000 strokes : 135.0 cm3/1000 strokes : \leftarrow 20.0 Check tolerance cm3/1000s. : **←** 24.0 LOW IDLE Rated speed rpm : 300 Del. quantity cm3/1000 strokes : 23.0 cm3/1000 strokes : +- 3.0 Check tolerance cm3/1000s. : +- 6.0 Spreed cm3/1000 strokes : 8.0 Check tolerance cm3/1000s. : 12.0

End of test specification sheet

Del. quantity

cm3/1000 strokes : 230.0

Note remarks

Refer to Service Info for test and adjustment instructions.

See microcard(s) W400/...

: 30.10.96 Edition Test oil : ISO 4113

Combination No. : 0 402 646 992

Injection pump

Pump designation : PE6P120A720RS7021

EP type number : 0 412 626 869

Governor

Governer design. : RQ200/1000PA1036

Governer no. : 0 421 801 649

Cust. part No. : 1363610

Customer-spec. information Customer : SCANIA

: DSI11E01 Motor

TEST BENCH REQUIREMENTS

: 4.2 Inlet line

Vibration

damper

(RoBo diaphragm) : 3.1

Test oil inlet

temp. °C Tolerance °C : +- 2.0

Overflow valve : 1 417 413 025

Inlet press. bar : Tolerance bar : + 0.1

Test nozzle holde

assembly : 1 688 901 104

Opening pressure

: 251.5 bar Tolerance bar : + 1.5 Test lines : 1 680 750 008

Outside diameter : 6.0

x inside diameter : 2.0 x length mm : 600

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values ____

BEGINNING OF DELIVERY

Test pressure bar : 26.0 Tolerance bar : + 1.0

Prestroke mm : 5.05 Tolerance mm : + 0.05

Check

: +- 0.10 tolerance mm

Rack travel in mm: 10.50

Tolerance mm : \leftarrow 1.50

Firing order : 1-5-3-6-2-

: 4

: 0-60-120-180-240 Phasing

: -300

Tolerance : +- 0.30

Check

tolerance *NW : +- 0.75

Start of delivery mark

: + 0.10Tolerance

Check

tolerance °NW : +- 0.75

Barrel no. : 1

BASIC SETTING

700 Rated speed rpm :

Rack travel in mm: 13.45

Tolerance mm	: +- 0.05	+ guide slee
Dol graphits		+ travel mm
Del. quantity cm3/1000 strokes	. 259.0	† Tolerance r
CHOT TOOU STICKES	. 20.0	Rated speed
cm3/1000 strokes	• +- 10	guide sleev
CHOT TOOD SCI OKES		travel mm
Check tolerance		+ Tolerance
	: +- 4.0	1
	110	<u> </u>
Spreed		
cm3/1000 strokes	: 8.0	+
		+ Rated speed
Check tolerance		+
cm3/1000S.	: 12.0	+ Rack trave
		† Tolerance r
Rated speed rpm	: 250	†
		FILL 1 040 /
Rack travel in mo	n: 6.30	+ FULL LOAD I
	: + 0.10	Rated speed
Del. quantity		Aneroid pre
cm3/1000 strokes	: 31.0	+ hPa
		Del. quant
cm3/1000 strokes Check tolerance cm3/1000s.		+ cm3/1000 st
	: +- 6.0	+ cm3/1000 st
Spreed		+ Check toler
cm3/1000 strokes		+ cm3/1000s.
Check tolerance		+ Spreed
cm3/1000s.	: 8.0	+ cm3/1000 st
		+ Check toler
(B) SETTING OF IN	LIECTICAL DUMD	t cm3/1000s.
WITH GOVERNOR	NOECTION FOME	I
42111 0012/1/1011		<u> </u>
		CONTROL LEV
GUIDE SLEEVE TRAV	/EL	+
Dotted annual new	. 250	+ control lev
Rated speed rpm guide sleeve	. 230	tolerance of
travel mm	: 1.08	T toterance c
Tolerance mm	: + 0.10	I control lev
. Jeci di loc libit		position de
Rated speed rpm	: 1054	+ tolerance of
guide sleeve		+
travel mm	: 4.39	+ RATED SPEED
Tolerance mm	: +- 0.10	+
		+ rack travel
Rated speed rpm	: 1000	+ Rated speed
guide sleeve	4 00	+ Tolerance 1
travel mm	: 4.00	
Tolerance mm	: ← 0.10	+ rack travel
Rated speed rpm	: 353	+ Rated speed + Tolerance 1
guide sleeve		I locerance
travel mm	: 3.46	T rack travel
		1 201 01 4701
Tolerance mm	: +- 0.10	
Tolerance mm	: 3.46 : + 0.10	rack travel Tolerance m Rated speed
Tolerance mm Rated speed rpm	: + 0.10	Tolerance m
	: + 0.10	+ Tolerance m + Rated speed +

guide sleeve travel mm Tolerance mm Rated speed rpm guide sleeve travel mm Tolerance mm	: 4.00 : + 0.10 : 1460 : 11.50 : : - 0.50
GUIDE SLEEVE POSI	TION
Rated speed rpm	: 600
Rack travel in mm Tolerance mm	: 16.50 : +- 1.30
FULL LOAD DELIVER	Y AT FULL LOAD STOP
Aneroid pressure hPa Del. quantity cm3/1000 strokes cm3/1000 strokes Check tolerance cm3/1000s. Spreed cm3/1000 strokes Check tolerance	
cm3/1000s. CONTROL LEVER	: 12.0
control lever position degree tolerance degree	
control lever position degree tolerance degree	: 98.0 : +- 4.0
RATED SPEED	
rack travel mm Rated speed rpm Tolerance 1/min	: 12.40 : 1045 : +- 5
rack travel mm Rated speed rpm Tolerance 1/min	: 4.00 : 1185 : + 15
rack travel mm Tolerance mm Rated speed rpm	: 0.50 : +- 0.50 : 1300

		†	rack travel mm	: 13.25 : + 0.05
LOW IDLE		 	Tolerance mm	: + 0.05
control lever position degree tolerance degree	: 66.0 : + 4.0	† + + +	FUEL DELIVERY CHA	RACTERISTICS
control lever position degree tolerance degree	: 11.0 : + 4.0	‡	Aneroid pressure hPa Rated speed rpm Del. quantity	: - : 1000
Testing:		+	cm3/1000 strokes cm3/1000 strokes	: +- 4.0
Rated speed rpm rack travel mm Tolerance mm	: 6.30 : ← 0.10	† † †	Check tolerance cm3/1000s. Aneroid pressure hPa	
rack travel mm Rated speed rpm Tolerance 1/min	: 2.00 : 350 : ← 30	1	nra Rated speed rpm Del. quantity cm3/1000 strokes cm3/1000 strokes	: 268.0
Rated speed rpm	: 150	Ŧ	Check tolerance cm3/1000s.	
CRT mm min.	: > 8.50	‡	DDEAVALIAV	
TORQUE CONTROL			BREAKAWAY	
Rated speed rpm rack travel mm Tolerance mm	: 13.45	†	Rack travel in mm Rated speed rpm Tolerance 1/min	: 1045
Rated speed rpm rack travel mm Tolerance mm	: 1000 : 13.45 : +- 0.10	+ + +	STARTING FUEL DEL	IVERY
ANEROID/ALTITUDE COMPENSATOR TEST		}	Rated speed rpm rack travel mm Tolerance mm Del. quantity cm3/1000 strokes	: 12.90 : + 0.20
SETTING		‡	cm3/1000 strokes Check tolerance	: +- 20.0
Rated speed rpm Pressure hPa rack travel mm Tolerance mm	: 500 : 1500 : 13.45 : +- 0.05	† † †	cm3/1000s.	: +- 24.0
MEASUREMENT		Ī	LOW IDLE	
Pressure hPa Rated speed rpm rack travel mm Tolerance mm	: 500 : 12.90 : + 0.20	† † †	Rated speed rpm Del. quantity cm3/1000 strokes cm3/1000 strokes Check tolerance	
Rated speed rpm	: 500	Ī	cm3/1000s. Spreed	: +- 6.0
Pressure hPa	: 235	1	cm3/1000 strokes	: 4.0

Check tolerance		
cm3/1000S.	:	8.0

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

Edition : 09.02.96 : ISO 4113 Test oil

Combination No. : 0 402 744 803

Injection pump

Pump designation : PES4P120A320RS7312

: -1

: 0 412 724 803 EP type number

Governor

Governer design. : RQV400...1200PA1131

: -1

: 0 421 814 154 Governer no.

Cust. part No. : 51.11103-7470

Customer-spec. information

Customer : MAN

: DO824 LFL 06 Motor

Power KW : 114.0

TEST BENCH REQUIREMENTS

Inlet line : 4.2

Test oil inlet

temp. °C Tolerance °C

Overflow valve : 1 417 413 025

Inlet press. bar : Tolerance bar : ← 0.1

Overflow quantity

min. L/h : 110 Tolerance L/h : + 10.0

Test nozzle holde

: 1 688 901 103 assembly

Opening pressure

: 208.5 bar

Tolerance bar : + 1.5

Test lines : 1 680 750 008

Outside diameter : 6.0

x inside diameter : 2.0 x length mm :

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values ____

BEGINNING OF DELIVERY

Test pressure bar : 26.0 Tolerance bar : + 1.0

Prestroke mm : 5.25 Tolerance mm : + 0.05

Check

: **←** 0.10 tolerance mm

Rack travel in mm: 13.00 Tolerance mm : +- 0.50

Firing order : 1-3-4-2

Phasing : 0-90-180-270 Tolerance

: +- 0.30

Check

tolerance *NW : +- 0.75

Start of delivery blocking

Barrel no. : 1

BASIC SETTING

Rated speed rpm : 700

Rack travel in mm : 5.20 Tolerance mm : \leftarrow 0.10

Del. quantity

cm3/1000 strokes : 73.0

G19

cm3/1000 strokes	: ← 5.0	+ guide sleeve + travel mma : 10.15
Check tolerance cm3/1000s.	: +- 8.0	Tolerance mm : + 0.15
Spreed		Rated speed rpm : 836 guide sleeve
cm3/1000 strokes	: 3.0	travel mm : 5.76 Tolerance mm : 4- 0.25
Check tolerance cm3/1000s.	: 6.0	Rated speed rpm : 458 guide sleeve
Rated speed rpm	: 1000	travel mm : 2.45 Tolerance mm : + 0.25
	49.05	Rated speed rpm : 508
Rack travel in mm Tolerance mm		guide sleeve travel mm : 3.10 Tolerance mm : +- 0.25
Del. quantity		+
cm3/1000 strokes		Rated speed rpm : 540 guide sleeve
cm3/1000 strokes	: + 1.0	travel mm : 3.61 Tolerance mm : + 0.25
Check tolerance cm3/1000s.	: + 4.0	Rated speed rpm : 1490
Spreed cm3/1000 strokes	: 8.0	guide sleeve travel mm : 13.50 Tolerance mm : + 0.50
		Total discontinuation of the state of the st
Check tolerance cm3/1000s.	: 12.0	GUIDE SLEEVE POSITION
Rated speed rpm	: 400	Rated speed rpm : 1330
		Rack travel in mm: 12.00
Rack travel in mm Tolerance mm Del. quantity		Tolerance mm : + 1.30
cm3/1000 strokes cm3/1000 strokes		FULL LOAD DELIVERY AT FULL LOAD STOP
Check tolerance cm3/1000s.	: +- 6.0	Rated speed rpm : 1000 Aneroid pressure
Spreed	•	hPa : 1200 Del. quantity
cm3/1000 strokes Check tolerance	-	cm3/1000 strokes : 206.0
cm3/1000s.	: 12.0	cm3/1000 strokes : + 1.0 Check tolerance
(B) SETTING OF INJ	- FCTTON PUMP -	├ cm3/1000S. : +- 4.0 ├ Spreed
WITH GOVERNOR	-	cm3/1000 strokes : 8.0 Check tolerance
GUIDE SLEEVE TRAVE		cm3/1000s. : 12.0
Rated speed rpm	: 400	
guide sleeve	-	CONTROL LEVER
travel mm Tolerance mm	: 1.57 : + 0.20	control lever
Rated speed rpm	: 1261	position degree : 301.0 tolerance degree : +- 4.0
nated opeca i pin		,

RATED SPEED

rack travel mm	:	12.05
Rated speed rpm	:	1250
Tolerance 1/min	: •	- 8

rack travel mm	:	4.00
Rated speed rpm	:	1340
Tolerance 1/min	: -	⊢ 15

rack travel mm	:	0.50
Tolerance mm	:	+- 0.50
Rated speed rpm	:	1480

LOW IDLE

control	lever		
position	dearee	:	2

Testing:

Rated speed rpm	:	400
rack travel mm	:	4.80
Tolerance mm	: +-	0.10

Rated speed rpm : 300

CRT	מית	min.	•	>	7.60
O11	******	100 11 1 .	•	-	1.00

TORQUE CONTROL

Rated speed rpm	•	1000
rack travel mm	:	13.05
Tolerance mm	:	← 0.05

Rated speed rpm	:	1200
rack travel mm	:	13.05
Tolerance mm	: •	← 0.10

Rated speed rpm	:	700
rack travel mm	:	13.05
Tolerance mm	: +	- 0.10

ANEROID/ALTITUDE COMPENSATOR TEST

SETTING

Rated speed rpm	:	500
Pressure hPa	:	1200
rack travel mm	:	13.05
Tolerance mm	:	← 0.05

MEASUREMENT

Pressure hPa	: -
Rated speed rpm	: 500
rack travel mm	: 7.80
Tolerance mm	: + 0.15
Rated speed rpm	: 500
Pressure hPa	: 140
rack travel mm	: 8.55
Tolerance mm	: + 0.15

Pressure hPa	:	500
rack travel mm	:	12.10
Tolerance mm	: +-	- 0.25

START CUT-OUT

Rated	speed	rpm	: <	280
Rated	speed	rpm	: >	320

Check		
speed 1/min	: <	260
Check speed 1/min	: >	340

FUEL DELIVERY CHARACTERISTICS

Aneroid pressure		
hPa	:	1200
Rated speed rpm	:	1200
Nat minmada.		

cm3/1000 strokes	:		208.0
cm3/1000 strokes	:	+	3.0
Check tolerance			
cm3/1000S.	:	+	6.0

Aneroid pressure		
hPa		1200
=	•	
Rated speed rpm	:	700
Del. quantity		
cm3/1000 strokes	:	218.0
cm3/1000 strokes	: ◂	- 3.0
Check tolerance		

cm3/1000s.	: +-	6.0
Aneroid pressure	_	
hPa	:	
Rated speed rpm	:	500
Del. quantity		

cm3/1000 strokes	: +-	1.0
Check tolerance		
cm3/1000s.	: +-	4.0

cm3/1000 strokes : 120.0

BREAKAWAY

Rack travel in mm : 12.05 Rated speed rpm : 1250 Tolerance 1/min : + 8

STARTING FUEL DELIVERY

Rated speed rpm : 100

Del. quantity

cm3/1000 strokes : 206.0 cm3/1000 strokes : + 15.0

Check tolerance

cm3/1000s. : \leftarrow 19.0

LOW IDLE

Rated speed rpm : 400

Del. quantity

 $cm3/1000 \text{ strokes} : 40.0 \\ cm3/1000 \text{ strokes} : + 3.0$

Check tolerance

cm3/1000s. : +- 6.0

Spreed

cm3/1000 strokes : 8.0

Check tolerance

cm3/1000s. : 12.0

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

Edition : 24.10.96 Test oil : ISO 4113

Combination No. : 0 402 746 964

Injection pump

Pump designation : PES6P120A320RS7317 EP type number : 0 412 726 903

Governor

Governer design. : RQV275...1000PA1001

Governer no. : 0 421 813 931

Cust. part No. : CCEP 5111B 66-181

Customer-spec. information

Customer : RENAULT V.I. : MIDR 062045 E/3 Motor

Power KW : 249.0

TEST BENCH REQUIREMENTS

Inlet line : 3.1

Test oil inlet

temp. °C temp. $^{\circ}$ C : 40 Tolerance $^{\circ}$ C : \leftarrow 2.0

Overflow valve : 2 417 413 071

Inlet press. bar : 2.5 Tolerance bar : + 0.1

Test nozzle holde

: 1 688 901 105 assembly

Opening pressure

bar : 208.5 Tolerance bar : + 1.5

Test Lines : 1 680 750 089

Outside diameter : 8.0

x inside diameter: 3.0 x length mm : 600

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values _____

BEGINNING OF DELIVERY

Test pressure bar : 26.0 Tolerance bar : + 1.0

Prestroke mm : 4.70 Tolerance mm : + 0.05

Check

tolerance mm : \leftarrow 0.10

Rack travel in mm: 18.00 Tolerance mm : \leftarrow 0.50

Firing order : 1-5-3-6-2-

Phasing : 0-60-120-180-240

: -300

: +- 0.30 Tolerance

Check

tolerance *NW : +- 0.50

Start of delivery mark

Tolerance : \leftarrow 0.50

Check

tolerance *NW : +- 0.75

Barrel no. : 1

CRT ZERO POSITION

Rack travel in mm: 13.90

Tolerance mm : +- 0.05

	+ Tolerance mm : + 0.20
BASIC SETTING	Rated speed rpm : 393 guide sleeve
Rated speed rpm : 600	travel mm : 2.99 Tolerance mm : + 0.20
Del. quantity cm3/1 000 strokes : 269.0	Rated speed rpm : 490 guide sleeve
cm3/1000 strokes : + 1.0	travel mm : 3.81 Tolerance mm : + 0.20
Check tolerance cm3/1000s. : + 4.0	Rated speed rpm : 1370 guide sleeve
Spreed cm3/1000 strokes : 5.0	travel mm : 11.50 Tolerance mm : + 0.50
Check tolerance cm3/1000s. : 9.0	GUIDE SLEEVE POSITION
Rated speed rpm : 275	Rated speed rpm : 1165
	Rack travel in mm: 12.90
Rack travel in mm : -8.10 Tolerance mm : +- 0.10 Del. quantity	Tolerance mm : + 1.30
cm3/1000 strokes : 34.0	FULL LOAD DELIVERY AT FULL LOAD STOP
cm3/1000 strokes : + 2.0 Check tolerance	+ Rated speed rpm : 600
cm3/1000s. : +- 5.0	+ Aneroid pressure
Spreed cm3/1000 strokes : 8.0	+ hPa : 1000 + Del. quantity
Check tolerance	+ cm3/1000 strokes : 269.0
cm3/1000s. : 12.0	cm3/1000 strokes : +- 1.0 + Check tolerance
	+ cm3/1000s. : + 4.0
(B) SETTING OF INJECTION PUMP	+ Spreed
WITH GOVERNOR	+ cm3/1000 strokes : 5.0 + Check tolerance
	- cm3/1000s. : 9.0
GUIDE SLEEVE TRAVEL	‡
Rated speed rpm : 275	CONTROL LEVED
guide steeve travet mm : 1.29	CONTROL LEVER
Tolerance mm : + 0.10	- control lever
Rated speed rpm : 1096	+ position degree : 303.0 + tolerance degree : + 4.0
guide sleeve travel mm : 8.56	A RATED SPEED
Tolerance mm : +- 0.10	1 00
Rated speed rpm : 777	rack travel mm : -1.00 Rated speed rpm : 1080
guide sleeve	Tolerance 1/min : + 5
travel mm : 6.11	t mark through the color
Tolerance mm : +- 0.20	+ rack travel mm : -9.90 + Rated speed rpm : 1220
Rated speed rpm : 343	Tolerance 1/min : + 15
guide sleeve travel mm : 2.33	+ rack travel mm : -13.40
	•

Tolerance mm Rated speed rpm	: ← 0.55 : 1300	+ Tolerance mm : + 0.05
		START CUT-OUT
LOW IDLE		Rated speed rpm : > 100 Rated speed rpm : < 225
control lever position degree tolerance degree		Check speed 1/min : > 80 Check speed 1/min : < 245
Testing:		Speed Mann 243
Rated speed rpm rack travel mm Tolerance mm	: -8.10	FUEL DELIVERY CHARACTERISTICS Aneroid pressure
Rated speed rpm	: 200	hPa : 1000 + Rated speed rpm : 1000 + Del. quantity
CRT mm max.	: < -6.60	cm3/1000 strokes : 248.0 cm3/1000 strokes : + 3.0
Rated speed rpm	: 340	Check tolerance cm3/1000s. : +- 6.0
TORQUE CONTROL		Aneroid pressure
Rated speed rpm	: 600	Rated speed rpm : 600 Del. quantity
Rated speed rpm Tolerance mm		+ cm3/1000 strokes : 109.0 + cm3/1000 strokes : + 5.0
Rated speed rpm rack travel mm	: 600 : -5.50	Check tolerance cm3/1000s. : + 8.0 Spreed cm3/1000 strokes : 8.0
ANEROID/ALTITUDE COMPENSATOR TEST		Check tolerance cm3/1000s. : 12.0
SETTING		Aneroid pressure hPa : - Rated speed rpm : 500 Del. quantity
Rated speed rpm Pressure hPa	: 500 : 1000	cm3/1000 strokes : 130.0 cm3/1000 strokes : + 1.0 Check tolerance
MEASUREMENT		+ cm3/1000s. : + 4.0
Pressure hPa Rated speed rpm rack travel mm Tolerance mm	: - : 500 : -4.10 : +- 0.30	BREAKAWAY
Rated speed rpm	: 500	Rack travel in mm: -1.00 Rated speed rpm: 1080 Tolerance 1/min: +- 5
Pressure hPa rack travel mm Tolerance mm	: 200 : -3.60 : +- 0.15	Toteracite marci.
Pressure hPa rack travel mm	: 560 : -0.75	STARTING FUEL DELIVERY

Del. quantity cm3/1000 strokes : 155.0 cm3/1000 strokes : +- 15.0 Check tolerance cm3/1000s.

: +- 19.0

LOW IDLE

Rated speed rpm : 275 Del. quantity cm3/1000 strokes : 34.0 cm3/1000 strokes : +-2.0 Check tolerance cm3/1000s. 5.0 Spreed cm3/1000 strokes : 8.0 Check tolerance cm3/1000s.12.0

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

: 30.10.96 Edition Test oil : ISO 4113

Combination No. : 0 402 748 812

Injection pump

Pump designation : PES8P120A720LS7425 EP type number : 0 412 728 814

Governor

Governer design. : RQV350...1200PA1310K Governer no. : 0 421 815 541

Cust. part No. : CCEP 5164 66-136

Customer-spec. information

Customer : RENAULT V.I. : MACK E9-750 Motor

Power KW : 552.0

TEST BENCH REQUIREMENTS

Inlet line : 4.2

Test oil inlet

temp. °C Tolerance °C : +- 2.0

Overflow valve : 2 417 413 077

Inlet press. bar : 1.5 Tolerance bar : + 0.1

Test nozzle holde

: 1 688 901 105 assembly

Opening pressure

: 208.5 bar Tolerance bar : +- 1.5

Test Lines : 1 680 750 089

Outside diameter : 8.0

x inside diameter : 3.0 x length mm : 600

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values ____

BEGINNING OF DELIVERY

Test pressure bar : 26.0 Tolerance bar : + 1.0

Prestroke mm 3.75 : +- 0.05 Tolerance mm Check

: +- 0.10 tolerance mm

Rack travel in mm : 10.00 Tolerance mm : +- 0.50

Firing order : 1-2-7-8-4 : - 5- 6- 3

: 0-45-90-135-180 : -225-270-315 Phasing

: +- 0.30 Tolerance Check

tolerance °NW : +- 0.50

Start of delivery mark

*NW after s.o.d. : -0.15 Tolerance : + 0.50

Check

tolerance *NW : + 0.75

Barrel no. : 1

Beginning of delivery differende

betw. rack trav.

: 21.00

and maximum rack

10.00 travel Difference * CS : 4.25

CRT ZERO POSITION

		,
Rack travel in ma Tolerance mm		Rated speed rpm : 480 guide sleeve travel mm : 3.27 Tolerance mm : +- 0.25
BASIC SETTING		Rated speed rpm : 1570
Rated speed rpm	: 1200	+ guide sleeve + travel mm : 13.50 - Tolerance mm : + 0.50
Del. quantity cm3/1000 strokes	: 305.0	GUIDE SLEEVE POSITION
cm3/1000 strokes	: + 1.0	+
Check tolerance cm3/1000s.	: + 4.0	Rated speed rpm : 1408 Rack travel in mm : 12.30
Spreed cm3/1000 strokes	: 4.0	+ Tolerance mm : + 1.30
Check tolerance		FULL LOAD DELIVERY AT FULL LOAD STOP
cm3/1000s.	: 8.0	Rated speed rpm : 1200 Aneroid pressure
Rated speed rpm	: 325	+ hPa : 1200 + Del. quantity
Rack travel in mm		cm3/1000 strokes : 305.0 cm3/1000 strokes : + 1.0 Check tolerance
Del. quantity		+ cm3/1000s. : +- 4.0
cm3/1000 strokes cm3/1000 strokes		+ Spreed + cm3/1000 strokes : 4.0
Check tolerance cm3/1000s. Spreed	: +- 6.0	+ Check tolerance + cm3/1000S. : 8.0
cm3/1000 strokes Check tolerance	: 8.0	<u> </u>
cm3/1000s.	: 12.0	CONTROL LEVER
(B) SETTING OF IN WITH GOVERNOR	JECTION PUMP	control lever position degree : 117.0 tolerance degree : + 4.0
GUIDE SLEEVE TRAV	E1	RATED SPEED
Rated speed rpm		rack travel mm : -1.00 Rated speed rpm : 1250
guide sleeve travel mm	: 1.90	+ Tolerance 1/min : +- 5
Tolerance mm	: +- 0.20	rack travel mm : -9.30 Rated speed rpm : 1370
Rated speed rpm guide sleeve	: 1255	Tolerance 1/min : +- 15
travel mm Tolerance mm	: 9.50 : + 0.15	rack travel mm : −12.75 Tolerance mm : + 0.55 Rated speed rpm : 1450
Rated speed rpm guide sleeve	: 833	T Nated Speed (Mill : 1430
travel mm Tolerance mm	: 5.90 : + 0.25	LOW IDLE

		Ť
control lever position degree tolerance degree	: 73.0 : +- 4.0	START CUT-OUT Rated speed rpm : > 120
Testing:		Rated speed rpm : < 230
Rated speed rpm	• 325	+ Check + speed 1/min :> 100
rack travel mm	: 325 : -6.30	+ Check
Tolerance mm	: +- 0.10	+ speed 1/min : < 250
Rated speed rpm	: 225	+ FUEL DELIVERY CHARACTERISTICS
CRT mm max.	: < -4.20	Aneroid pressure
Rated speed rpm	: 350	+ hPa : 1200
, ,		Rated speed rpm : 900
TORQUE CONTROL	· <u> </u>	
TORGOL CONTROL		cm3/1000 strokes : + 3.0
Rated speed rpm	: 1200	Check tolerance
Dated aread nom	: 900	+ cm3/1000s. : +- 6.0
Rated speed rpm rack travel mm		Aneroid pressure
Tolerance mm	: + 0.10	+ hPa : -
, o co. a. 100		Rated speed rpm : 500
Rated speed rpm	: 600	+ Del. quantity
rack travel mm		+ cm3/1000 strokes : 188.5
Tolerance mm	: +- 0.15	+ cm3/1000 strokes : + 1.0
		+ Check tolerance
ANEROID/ALTITUDE COMPENSATOR TEST		
• • • • • • • • • • • • • • • • • • •		BREAKAWAY
SETTING		+
	4000	+ Rack travel in mm : -1.00
Rated speed rpm	: 1200 : 1200	Rated speed rpm : 1250 Tolerance 1/min : +- 5
Pressure hPa Tolerance mm		1 Toterance Thirm: 1
		+
MEASUREMENT		STARTING FUEL DELIVERY
Pressure hPa	: -	600
Rated speed rpm	500	+ Rated speed rpm : 100
rack travel mm Tolerance mm	: -3.30 : +- 0.20	+ rack travel mm : 21.00 + Del. quantity
rocerance in	. +- 0.20	cm3/1000 strokes : 360.0
Rated speed rpm	: 1200	cm3/1000 strokes : + 15.0 Check tolerance
Pressure hPa	: 640	+ cm3/1000s. : +- 19.0
rack travel mm	2.60	1
Tolerance mm	: + 0.20	<u> </u>
Pressure hPa	: 950	ļ
rack travel mm	: -0.75	LOW IDLE
Tolerance mm	: +- 0.05	†
		Rated speed rpm : 325
		————— —

Del. quantity		
cm3/1000 strokes	:	53.0
cm3/1000 strokes	: +-	2.0
Check tolerance		
cm3/1000s.	: +-	6.0
Spreed		
cm3/1000 strokes	:	8.0
Check tolerance		
cm3/1000s.	:	12.0

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

Edition : 29.10.96 Test oil : ISO 4113

Combination No. : 0 402 848 300

Injection pump

Pump designation : PE8P120A520LS8518 EP type number : 0 412 828 201

Governor

Governer design. : RQV300...1150PA1323K

Governer no. : 0 421 815 963

Cust. part No. : 51.11103-7492

Customer—spec. information

Customer : MAN

: D 2848 LE 403 Motor

: 588.0 Power KW

TEST BENCH REQUIREMENTS

Inlet line : 3.2

Test oil inlet

temp. °C Tolerance °C : +- 2.0

Overflow valve : 1 417 413 078

Inlet press. bar : 2.5
Tolerance bar : + 0.1

Overflow quantity

min. L/h : 170 Tolerance L/h : + 15.0

Test nozzle holde

: 1 688 901 105 assembly

Opening pressure

: 208.5 bar Tolerance bar : +- 1.5 Test lines : 1 680 750 089

Outside diameter : 8.0

x inside diameter : 3.0 x length mm : 600

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values _____

BEGINNING OF DELIVERY

Test pressure bar : Tolerance bar : + 1.0

Prestroke mm : 5.65 Tolerance mm : +- 0.05

Check

tolerance mm : +- 0.10

Rack travel in mm: 13.00 Tolerance mm : \leftarrow 0.50

Firing order : 8-7-2-6-3 : - 5- 4- 1

Phasing : 0-45-90-135-180

: -225-270-315

: +- 0.30 Tolerance

Check

tolerance *NW : +- 0.50

Start of delivery blocking

Tolerance : \leftarrow 0.10

Check

tolerance *NW : +- 0.75

Barrel no. : 8

BASIC SETTING

Rated speed rpm : 1150

	+ Rated speed rpm : 1500
Rack travel in mm : 14.00	+ Rated speed rpm : 1500 + guide sleeve
Tolerance mm : + 0.05	+ travel mm : 13.50
	+ Tolerance mm : + 0.50
Del. quantity	+
cm3/1000 strokes : 335.0	CUIDE OF EACH DOCUMENT
cm3/1000 strokes : + 1.0	GUIDE SLEEVE POSITION
CIBS TOOD SCHOKES . TO	Rated speed rpm : 1323
Check tolerance	+ Material Speed (p.)
$cm3/1000s.$: \leftarrow 4.0	Rack travel in mm: 13.00
	+ Tolerance mm : + 1.30
Spreed cm3/1000 strokes : 8.0	† <u> </u>
CMD/ 1000 Strokes : a.u	FULL LOAD DELIVERY AT FULL LOAD STOP
Check tolerance	TOCK EDAD DELIVERY AT TOCK EDAD OTO
cm3/1000s. : 12.0	Rated speed rpm : 1150
	+ Aneroid pressure
Rated speed rpm : 300	+ hPa : 2000
	+ Del. quantity + cm3/1000 strokes : 335.0
Rack travel in mm: 5.20	cm3/1000 strokes : +- 1.0
Tolerance mm : + 0.10	Check tolerance
Del. quantity	+ cm3/1000s. : +- 4.0
cm3/1000 strokes : 49.0	+ Spreed
cm3/1000 strokes : + 3.0	- cm3/1000 strokes : 8.0
Check tolerance cm3/1000s. : +- 8.0	+ Check tolerance + cm3/1000s. : 12.0
Spreed	- 12.0
cm3/1000 strokes : 8.0	+
Check tolerance	+
cm3/1000s. : 12.0	+ CONTROL LEVER
	t control lever
(B) SETTING OF INJECTION PUMP	position degree : 118.0
WITH GOVERNOR	+ tolerance degree : +- 4.0
	+
OUT DE OUED ET TO A VE	RATED SPEED
GUIDE SLEEVE TRAVEL	rack travel mm : 13.00
Rated speed rpm : 300	Rated speed rpm : 1195
guide sleeve	+ Tolerance 1/min : +- 5
travel mm : 1.61	+
Tolerance mm : + 0.20	+ rack travel mm : 4.00 + Rated speed rpm : 1320
Rated speed rpm : 1206	+ Rated speed rpm : 1320 + Tolerance 1/min : + 15
guide sleeve	+ Total and Triming
travel mm : 9.84	+ rack travel mm : 0.50
Tolerance mm : +- 0.15	+ Tolerance mm : + 0.50
Debad around non- 1 707	Rated speed rpm : 1475
Rated speed rpm : 797 guide sleeve	I
travel mm : 6.36	
Tolerance mm : + 0.25	+ LOW IDLE
	+
Rated speed rpm : 460	†
guide sleeve travel mm : 3.78	control lever position degree : 72.0
travel mm : 3.78 Tolerance mm : + 0.25	tolerance degree : +- 4.0
1000 arioc limit	+
	•

Testing:		+	Pressure hPa	
Rated speed rpm rack travel mm Tolerance mm	: 300	‡	rack travel mm Tolerance mm	: 8.10 : +- 0.05
Tolerance mm	· + 0 10	I	Pressure hPa	• 1100
rocci di lee liili		1	rack travel mm	12.20
Rated speed rpm	: 200	<u> </u>	Pressure hPa rack travel mm Tolerance mm	: + 0.15
CRT mm min.	: > 7.39	<u> </u>	START CUT-OUT	
Rated speed rpm	: 332	1	Rated speed rpm	•> 170
TORQUE CONTROL		 ±	Rated speed rpm	: < 230
TORGOL CONTROL		Ţ	Check	
Rated speed rpm	: 1150	+	speed 1/min	: > 150
rack travel mm	: 14.00	+	Check	
rack travel mm Tolerance mm	: +- 0.05	‡	speed 1/min	: < 240
Rated speed rpm		+		
rack travel mm	: 13.10	+	FUEL DELIVERY CHA	ARACTERISTICS
Tolerance mm	: ← 0.10	+		
	0.50	+	Aneroid pressure	2050
Rated speed rpm rack travel Tolerance mm	: 850	†	hPa Rated speed rpm	: 2000
rack travel	12.00	†	Rated speed rpm	: 1000
loterance mm	0.10	T	Del. quantity cm3/1000 strokes	. 315 0
Rated speed rpm	• 650	I	cm3/1000 strokes	
rack travel mm	11.20	1	Check tolerance	
Tolerance mm	: +- 0.10	+	cm3/1000s.	
Rated speed rom	· 500	I	Aneroid pressure	
rack travel mm	: 6.30	<u> </u>	hPa	: 2000
Rated speed rpm rack travel mm Tolerance mm	: + 0.10	<u> </u>	Rated speed rpm	: 850
Rated speed rpm	: 500	1	Del. quantity cm3/1000 strokes	: 290.0
rack travel mm	7.40	1	cm3/1000 strokes	: +- 4.0
Tolerance mm	: ← 0.10	 	Check tolerance	
			Check tolerance cm3/1000s.	: +- 8.0
ANEROID/ALTITUDE		+	Aneroid pressure	2000
COMPENSATOR TEST		†	hPa	: 2000 : 650
		1	Rated speed rpm Del. quantity	. 050
SETTING		I	cm3/1000 strokes	: 279.0
OF (17140		1	cm3/1000 strokes	
Rated speed rpm	: 1150	1	Check tolerance	
Pressure hPa		+	cm3/1000s.	
rack travel mm	: 14.00	+		
Tolerance mm	: 0.05	+	Aneroid pressure	
		+	hPa	: -
MEASUREMENT		†	Rated speed rpm Del. quantity	: 500
Pressure hPa	• –	I	cm3/1000 strokes	. 0.1
Rated speed rpm	1150	Ī	cm3/1000 strokes	
rack travel mm	: 7.80	1	Check tolerance	
rack travel mm Tolerance mm	: ← 0.15	$\frac{1}{2}$	cm3/1000s.	: +- 0.1
Rated speed rpm	: 1150	I	Aneroid pressure	
nated speed i pill	. 1150	‡	hPa	: -

500 Rated speed rpm : Del. quantity cm3/1000 strokes : 165.0 cm3/1000 strokes : +- 15.0 Check tolerance cm3/1000s : + 15.0 Aneroid pressure hPa Rated speed rpm 500 Del. quantity cm3/1000 strokes : 175.0 cm3/1000 strokes : +-1.0 Check tolerance cm3/1000s. 4.6 Spreed cm3/1000 strokes : 8.0 Check tolerance cm3/1000s. 12.0 **BREAKAWAY** 13.00 Rack travel in mm : Rated speed rpm : 1195 Tolerance 1/min : +-STARTING FUEL DELIVERY 100 Rated speed rpm 20.50 rack travel mm : : +- 0.50 Tolerance mm Del. quantity cm3/1000 strokes : 130.0 cm3/1000 strokes : + 15.0Check tolerance cm3/1000s. : + 19.0 LOW IDLE Rated speed rpm 300 Dei. quantity cm3/1000 strokes : 49.0 cm3/1000 strokes : +-3.0 Check tolerance cm3/1000s. 8.0 Spreed cm3/1000 strokes : 8.0 Check tolerance cm3/1000s. 12.0

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

Edition : 29.10.96 Test oil : ISO 4113

Combination No. : 0 402 899 301

Injection pump

Pump designation : PE10P120A520LS8523

EP type number : 0 412 829 202

Governor

Governer design. : RE30

Governer no. : 0 421 890 040

Cust. part No. : 51.11103-7531

Customer-spec. information

Customer : MAN

: D 2840 LE 403 Motor

Power KW : 772.0

TEST BENCH REQUIREMENTS

Inlet line : EHAB

Test oil inlet

temp. °C Tolerance °C : + 2.0

Overflow valve : 2 417 413 089

Inlet press. bar : 2.5 Tolerance bar : + 0.1 2.5

Test nozzle holde

: 1 688 901 105 assembly

Opening pressure

: 173.5 bar : +- 1.5 Tolerance bar

Test lines : 1 680 750 089

Outside diameter : 8.0

x inside diameter: 3.0 x length mm : 600

REMARKS

Pump-specific values in Section (B) must be observed!

(A) INJECTION PUMP SETTINGS

No basic setting.

Setting of constant delivery

under Section C.

BEGINNING OF DELIVERY

Test pressure bar : 26.0 Tolerance bar : +- 1.0

Prestroke mm 5.20 Tolerance mm : +- 0.05

Check

tolerance mm : + 0.10

Rack travel in mm: 13.00 Tolerance mm : \leftarrow 0.50

: 10-9-4- 1-8 Firing order

: - 7- 6- 3- 5 : - 2

: 0-45-72-117-144 Phasing

: -189-216-261-288

: -333

: +- 0.50 Tolerance

Check

: +- 0.75 tolerance °NW

Start of delivery blocking

Tolerance : +- 0.10

Check

tolerance *NW : **←** 0.75

Barrel no. : 10

(B) POSITIONER TESTING Warm-up time: 3 minutes at n=600 min-1, Uact = 2.5 VTESTING & SETTING RACK TRAVEL SENSOR POSITION Engine speed min-1: Setting point (P, R and H pump) Uact V 3.100 : 13.00 CRT mm : +/- 0.05 Tolerance mm Check : +/- 0.10 tolerance mm Check value (P, R and H pump) : 1.700 : 6.15 Uact V CRT mm : +/- 0.25 Tolerance mm Check : +/- 0.30 tolerance mm Setting point (m pump) Uact V 3.100 12.50 CRT mm : +/- 0.05 Tolerance mm Check : +/- 0.10 tolerance mm Check value (qmuq M) : 1.700 Uact V 5.50 CRT mm : +/- 0.25 Tolerance mm Check : +/- 0.30 tolerance mm Stop position : Value with Uact V deenergised adjusting magnet and control rod in stop position. 0.75 CRT mm : +/- 0.25 Tolerance mm

: +/- 0.35

ENGINE-SPEED SENSOR (All P and R pumps not H and M pumps)

Test with control rod in stop position

Engine speed min-1: 60
Amplitude V: 1.4
Tolerance V: +/- 0.6
Check
tolerance V: +/- 1.20

Engine speed min-1: 600

Difference Amplitude to

Amplitude V : max.1.4

(C) INJECTION PUMP WITH POSITIONER

TEST POINT V1

cm3/1000s.

Rated speed rpm : 1150
Uact V : 3.360
Del. quantity
cm3/1000 strokes : 332.0
cm3/1000 strokes : +- 1.0
Check tolerance
cm3/1000s. : +- 4.0
Spreed
cm3/1000 strokes : 8.0
Check tolerance

FUEL DELIVERY CHARACTERISTICS

12.0

0.1

0.1

0.1

: +-

Rated speed rpm : Uact V 2.180 Del. quantity cm3/1000 strokes : 177.0cm3/1000 strokes : +- 5.0Check tolerance cm3/1000s. 9.0 Spreed cm3/1000 strokes : 8.0 Check tolerance cm3/1000s.12.0 Rated speed rpm : 500 Uact V 1.940 Del. quantity

cm3/1000 strokes :

Check tolerance

cm3/1000s.

cm3/1000 strokes : +-

H08

Check

tolerance mm

Rated speed rpm Uact V Del. quantity cm3/1000 strokes	: 500 : 2.160 : 165.0
cm3/1000 strokes Check tolerance cm3/1000s.	: +- 15.0 : +- 15.0
TEST POINT L1	. +- 15.0
Rated speed rpm	: 300
Uact V Tolerance Volt	: 1.580 : +- 0.060
Check tolerance Volt Del. quantity	: +- 0.080
cm3/1000 strokes cm3/1000 strokes	: 24.0 : + 3.0
Spreed cm3/1000 strokes Check tolerance	: 8.0
cm3/1000s.	: 12.0

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

Edition : 25.10.96 Test oil : ISO 4113

Combination No. : 0 403 446 217

Injection pump

Pump designation : PES6MW100/720RS1144

EP type number : 0 413 406 138

Governor

Governer design. : RQV300...1300MW48-9

Governer no. : 0 420 083 176

Cust. part No. :

Customer—spec. information Customer : MB-NFZ Motor : OM366A Power KW : 125.0

TEST BENCH REQUIREMENTS

Inlet line : 3.1

Test oil inlet

temp. °C : 40 Tolerance °C : +- 2.0

Overflow valve : 1 417 413 047

Inlet press. bar : 1.5

Test nozzle holde

assembly : 1 688 901 101

Opening pressure

bar : 208.5 Tolerance bar : + 1.5

Test Lines : 1 680 750 015

Outside diameter : 6.0

x inside diameter : 3.0 x length mm : 600

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values ____

BEGINNING OF DELIVERY

Test pressure bar : 31.0 Tolerance bar : +- 1.0

Prestroke mm : 3.75 Tolerance mm : + 0.05

Check

tolerance mm : \leftarrow 0.10

Rack travel in mm : 10.50 Tolerance mm : +- 1.50

Firing order : 1-5-3-6-2-

: 4

Phasing : 0-60-120-180-240

: -300

Tolerance : \leftarrow 0.50

Check

tolerance *NW : + 0.75

BASIC SETTING

Rated speed rpm : 1300

Rack travel in mm : 11.05 Tolerance mm : +- 0.05

Del. quantity

cm3/1000 strokes : 78.0

cm3/1000 strokes : +- 1.0

Check tolerance

cm3/1000s. : + 3.0

Spreed

cm3/1000 strokes : 3.5

• 0.5

Check tolerance		+ Del. quantity	
cm3/1000s.	: 6.0	+ cm3/1000 strokes	
		+ cm3/1000 strokes	: + 1.0
Rates speed rpm	: 300	Check tolerance cm3/1000s.	
		+ cm3/1000s.	: ← 3.0
		+ Spreed	
Rack travel in mm	n: 7.90	+ cm3/1000 strokes	: 3.5
Tolerance mm	: + 0.10	+ Check tolerance	
Del. quantity		+ cm3/1000s.	: 6.0
cm3/1000 strokes		+	
cm3/1000 strokes	: +- 2.0	+	
Check tolerance		+	
c m3/1000 S.	: ← 4.5	→ CONTROL LEVER	
Spreed		+	
cm3/1000 strokes	: 3.5	∔ control lever	
Check tolerance		+ position degree	: 100.0
cm3/1000s.	: 5.5	+ tolerance degree	: +- 4.0
		+	
		+ RATED SPEED	
(B) SETTING OF IN	NJECTION PUMP	+	
WITH GOVERNOR		+ rack travel mm	: 10.00
		+ Rated speed rpm	
		- + Tolerance 1/min	
GUIDE SLEEVE TRAV	ÆL	+	
		🕂 rack travel mm	
Rated speed rpm	: 1440	+ Rated speed rpm	
guide sleeve		+ Tolerance 1/min	: +- 15
travel mm	: 9.50	+	
Tolerance mm	: 0.20	+ rack travel mm	: 0.50
		+ Tolerance mm	: +- 0.50
Rated speed rpm	: 300	+ Rated speed rpm	: 1550
guide sleeve		+	
travel mm	: 1.40	+	
Tolerance mm	: ← 0.20	+	· · · · · · · · · · · · · · · · · · ·
		+ LOW IDLE	
Rated speed rpm	: 1350	+	
guide sleeve		+	
travel mm	: 8.70	+ control lever	
Tolerance mm	: ← 0.10	+ position degree	: 70.0
		+ tolerance degree	: +- 4.0
Rated speed rpm	: 500	+	
guide sleeve		+ Testing:	
travel mm	: 3.00	+	
travel mm Tolerance mm	: +- 0.30	+ Rated speed rpm	: 300
		rack travel mm Tolerance mm	: 7.90
		— ├ Tolerance mm	: + 0.10
GUIDE SLEEVE POSI	TION	+	
		+ Rated speed rpm	: 100
Rated speed rpm	: 1350	+	
		+ CRT mm min.	: > 9.50
Rack travel in mm		+	
Tolerance mm	: +- 1.30	+	
		TORQUE CONTROL	
		- +	
FULL LOAD DELIVER	Y AT FULL LOAD STOP	+ Rated speed rpm	: 1300
		rack travel mm Tolerance mm	: 11.05
Rated speed rpm	: 1300	† Tolerance mm	: ← 0.05
Aneroid pressure		+	
hPa	: -	+ Rated speed rpm	: 800
		rack travel mm	: 11.95
		•	

-
-
_
_
_
_
-
-

H12

Del. quantity cm3/1000 strokes : 83.0 cm3/1000 strokes : +- 5.0 Check tolerance cm3/1000s. : +- 8.0

LOW IDLE

Rated speed rpm : 300

Del. quantity

cm3/1000 strokes : 11.0

cm3/1000 strokes : + 2.0

Check tolerance

cm3/1000s. : + 4.5

Spreed

cm3/1000 strokes : 3.5

Check tolerance

cm3/1000s. : 5.5

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

: 12.11.96 Edition Test oil : ISO 4113

Combination No. : 9 400 083 422

Injection pump

Pump designation: PES3A80D320/3RS1264

EP type number : 9 400 083 053

Governor

Governer design. : RSV350...1200A2C627R Governer no. : 9 420 083 288

Cust. part No. :

Customer—spec. information Customer : MWM : D225-3 Motor

TEST BENCH REQUIREMENTS

Inlet line : 3.1

Test oil inlet

40 temp. °C Tolerance *C : +- 2.0

Overflow valve : 1 419 992 198

Inlet press. bar : 1.5

Test nozzle holde

: 0 681 343 009 assembly

Opening pressure

: 173.5 bar Tolerance bar : + 1.5

Test lines : 1 580 750 003

Outside diameter : 6.0

x inside diameter: 2.0

H13

x length mm : 600

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values ____

BEGINNING OF DELIVERY

Test pressure bar : 26.0 Tolerance bar : + 1.0

Prestroke mm : 2.25 Tolerance mm : + 0.05 Check

: **←** 0.10 tolerance mm

Rack travel in mm : 10.50 Tolerance mm : + 1.50

Firing order : 1- 2- 3

: 0-120-240 Phasing

Beginning of delivery differende

and maximum rack

travel : 10.50
Tolerance mm : + 1.50 Difference * CS : 4.50

BASIC SETTING

Rated speed rpm : 1200

Rack travel in mm : 9.45 Tolerance mm : +- 0.05

Del. quantity

cm3/1000 strokes : 51.0

cm3/1000 strokes : +- 0.5

Check tolerance : +- 2.0 cm3/1000s.

Spreed

cm3/1000 strokes : 2.5

	+
Check tolerance	RATED SPEED
cm3/1000s. : 4.0	†
Dated around now . 750	rack travel mm : 8.40
Rated speed rpm : 350	Rated speed rpm : 1245
	† Tolerance 1/min : +- 5
Rack travel in mm : 6.00	T rack travel mm : 4.00
Tolerance mm : + 0.10	Rated speed rpm : 1300
Del. quantity	+ Tolerance 1/min : + 15
cm3/1000 strokes : 9.0	Total and the state of the stat
cm3/1000 strokes : +- 1.5	rack travel mm : 0.85
Check tolerance	+ Tolerance mm : +- 0.55
cm3/1000s. : + 3.5	Rated speed rpm : 1400
Spreed	Thatea speed i piii . 1400
cm3/1000 strokes : 4.0	1
Check tolerance	
cm3/1000s. : 6.0	+ LOW IDLE
	1
	+
(B) SETTING OF INJECTION PUMP	+ control lever
WITH GOVERNOR	position degree : 20.0
	tolerance degree : +- 4.0
	+
	+ Setting point w/out bumber spring
GUIDE SLEEVE POSITION	+
	+ Rated speed rpm : 350
Rated speed rpm : 800	rack travel mm : 5.50
5 1 1 2 2 2 2	† <u> </u>
Rack travel in mm: 0.65	† Testing:
Tolerance mm : + 0.35	†
•	+ Rated speed rpm : 350
governorispring	+ rack travel mm : 6.00
pre-tension (72	+ Tolerance mm : + 0.10
click setting $x : 4.30$	†
	rack travel mm : 2.00
SHILL LOAD DELTHERY AT SHILL LOAD STOR	+ Rated speed rpm : 520
FULL LOAD DELIVERY AT FULL LOAD STOP	Tolerance 1/min : +- 30
Rated speed rpm : 1200	Rated speed rpm : 100
Aneroid pressure	I water speed this . Too
hPa : -	T CRT mm min. : > 19.00
Del. quantity	
cm3/1000 strokes : 51.0	
cm3/1000 strokes : +- 0.5	TORQUE CONTROL
Check tolerance	1 ONGOE CONTINOE
cm3/1000s. : + 2.0	Rated speed rpm : 1200
Spreed	+ rack travel mm : 9.45
cm3/1000 strokes : 2.5	+ Tolerance mm : + 0.05
Check tolerance	1
cm3/1000s. : 4.0	Rated speed rpm : 500
- Ita	+ rack travel mm : 9.50
	+ Tolerance mm : + 0.10
	+
CONTROL LEVER	+ Rated speed rpm : 400
-	+ rack travel mm : 10.90
control lever	+ Tolerance mm : + 0.30
position degree : 50.0	+
tolerance degree : +- 4.0	+
	1

BREAKAWAY

Rack travel in mm: 8.40
Rated speed rpm: 1245
Tolerance 1/min: +- 5

STARTING FUEL DELIVERY

Rated speed rpm : 100 rack travel mm : 20.00 Tolerance mm : + 1.00

LOW IDLE

Rated speed rpm : 350

Del. quantity

cm3/1000 strokes : 9.0

cm3/1000 strokes : + 1.5

Check tolerance

cm3/1000s. : + 3.5

Spreed

cm3/1000 strokes : 4.0

Check tolerance

cm3/1000s. : 6.0

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

Edition : 12.11.96 Test oil : ISO 4113

Combination No. : 9 400 083 426

Injection pump

Pump designation : PES4A80D320/3RS1265

EP type number : 9 400 083 055

Governor

Governer design. : RSV350...1200A2C627R

Governer no. : 9 420 083 288

Cust. part No. :

Customer—spec. information Customer : MWM Motor : D225-4

TEST BENCH REQUIREMENTS

Inlet line : 3.1

Test oil inlet

temp. °C : 40
Tolerance °C : + 2.0

Overflow valve : 1 419 992 198

Inlet press. bar : 1.5

Test nozzle holde

assembly : 0 681 343 009

Opening pressure

bar : 173.5 Tolerance bar : + 1.5

Test lines : 1 680 750 003

Outside diameter : 6.0

x inside diameter: 2.0

x length mm : 600

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values ____

BEGINNING OF DELIVERY

Test pressure bar : 26.0 Tolerance bar : + 1.0

Prestroke mm : 2.25
Tolerance mm : + 0.05

Check

tolerance mm : \leftarrow 0.10

Rack travel in mm : 10.50Tolerance mm : +- 1.50

Firing order : 1-3-4-2

Phasing : 0-90-180-270

Beginning of delivery differende

and maximum rack

travel : 10.50
Tolerance mm : + 1.50
Difference CS : 4.50

BASIC SETTING

Rated speed rpm : 1200

Rack travel in mm : 9.45
Tolerance mm : + 0.05

Del. quantity

cm3/1000 strokes : 51.0

cm3/1000 strokes : \leftarrow 0.5

Check tolerance

cm3/1000s. : +- 2.0

Spreed

cm3/1000 strokes : 2.5

		_
Check tolerance		7
cm3/1000S.	: 4.0	-
	750	-
Rated speed rpm	: 350	-
		-
Deal Assessed do me	4 00	-
Rack travel in mo	n: 6.00 :+- 0.10	-
Tolerance mm	: +- 0.10	-
Del. quantity	. 0.0	-
cm3/1000 strokes	: 9.0 : ← 1.5	-
cm3/1000 strokes	: +- 1.5	-
Check tolerance		7
cm3/1000s.	: + 3.5	7
Spreed		4
cm3/1000 strokes	: 4.0	7
Check tolerance cm3/1000s.		1
CMS/10005.	: 6.0	7
		1
(B) SETTING OF IN	LECTION DUMP	1
	MECITOR FUNC	1
WITH GOVERNOR		٦
		1
		7
GUIDE SLEEVE POSI	TTON	1
GOTHE SPECKE MOST	ITOM	1
Detect speed nom	• •	1
Rated speed rpm	: 800	1
Rack travel in mm	1: 0.65	
Tolerance mm	: +- 0.35]
roter differ than	0.33	
governor spring		
pre-tension		4
click setting x	: 4.75	4
		4
		4
FULL LOAD DELIVER	Y AT FULL LOAD STOP	4
		- 1
Rated speed rpm	: 1200	- 1
Aneroid pressure		- 1
hPa	: -	+
Del. quantity		- 1
cm3/1000 strokes	: 51.0	- 1
cm3/1000 strokes	: ← 0.5	- 1
Check tolerance		- 1
cm3/1000s.	: +- 2.0	- 1
Spreed		4
cm3/1000 strokes	: 2.5	- 1
Check tolerance		+
cm3/1000s.	: 4.0	+
		+
		†
0017001 15150		†
CONTROL LEVER		†
Asmanal Lauran		†
control lever	. 101.0	1
position degree	: 101.0	1
tolerance degree	: 	+
		+

RATED SPEED	
rack travel mm	: 8.40
Rated speed rpm	: 1245
Tolerance 1/min	: + 5
rack travel mm	: 4.00
Rated speed rpm	: 1300
Tolerance 1/min	: + 15
rack travel mm	: 1.00
Tolerance mm	: +- 0.70
Rated speed rpm	: 1450
LOW IDLE	
control lever position degree tolerance degree	: 74.0 : + 4.0
Setting point w/o	ut bumper spring
Rated speed rpm	: 350
rack travel mm	: 5.50
Testing:	
Rated speed rpm	: 350
rack travel mm	: 6.00
Tolerance mm	: +- 0.10
rack travel mm	: 2.00
Rated speed rpm	: 500
Tolerance 1/min	: + 30
Rated speed rpm	: 100
CRT mm min.	: > 19.00
TORQUE CONTROL	
Rated speed rpm	: 1200
rack travel mm	: 9.45
Tolerance mm	: + 0.05
Rated speed rpm	: 500
rack travel mm	: 9.50
Tolerance mm	: + 0.10
Rated speed rpm	: 400
rack travel mm	: 10.90
Tolerance mm	: +- 0.30

BREAKAWAY

Rack travel in mm : 8.40
Rated speed rpm : 1245
Tolerance 1/min : + 5

STARTING FUEL DELIVERY

Rated speed rpm : 100 rack travel mm : 20.00 Tolerance mm : + 1.00

LOW IDLE

Rated speed rpm : 350

Del. quantity
cm3/1000 strokes : 9.0
cm3/1000 strokes : + 1.5

Check tolerance
cm3/1000s. : + 3.5

Spreed
cm3/1000 strokes : 4.0

Check tolerance
cm3/1000s. : 6.0

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

: 12.11.96 Edition : ISO 4113 Test oil

Combination No. : 9 400 083 456

Injection pump

Pump designation : PES6A100b320/3RS2691

EP type number : 9 410 230 025

Governor

Governer design. : RSV400...900A7C2209

: -2R

: 9 420 083 237 Governer no.

Cust. part No. :

Customer-spec. information Customer : CUMMINS Motor :6 C 8.3 L Power KW : 110.0

TEST BENCH REQUIREMENTS

Inlet line : 3.2

Test oil inlet

temp. °C 40 : 40 : +- 2.0 Tolerance °C

Overflow valve : 1 419 922 198

Inlet press. bar : 1.0

Test nozzle holde

: 0 681 343 009 assembly

Opening pressure

173.5 bar : +- 1.5 Tolerance bar

Test Lines : 1 680 750 014

Outside diameter : 6.0

x inside diameter : 2.0 x length mm : 600

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values _____

BEGINNING OF DELIVERY

Test pressure bar : 26.0 Tolerance bar : + 1.0

Prestroke mm Tolerance mm : + 0.05 Check tolerance mm : +- 0.10

Rack travel in mm : 10.50 Tolerance mm : +- 1.50

Firing order : 1-5-3-6-2-

Phasing : 0-60-120-180-240

: -300

Beginning of delivery differende

and maximum rack

travel : 10.50 travel Tolerance mm : +- 1.50 Difference * CS : 3.50

BASIC SETTING

Rated speed rpm : 900

Rack travel in mm: 11.25 : +- 0.05 Tolerance mm

Del. quantity

cm3/1000 strokes : 101.5

cm3/1000 strokes : +- 1.0

Check tolerance

cm3/1000s. : +- 3.0

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	+
Spreed	→ control lever
m3/1000 strokes : 3.5	position degree : 57.0
	tolerance degree : + 4.0
heck tolerance	+
n3/1 000 s. : 8.0	+ control lever
	+ position degree : 107.0
ed speed rpm : 400	† tolerance degree : 4.0
	+
	+ RATED SPEED
ack travel in mm: 6.00	+
olerance mm : + 0.10	+ rack travel mm : 10.20
el. quantity	Rated speed rpm : 948
3/1 000 strokes : 18.5	Tolerance 1/min : + 3
3/1 000 strokes : + 2.0	+
neck tolerance	rack travel mm : 4.00
n3/1000s. : + 4.5	Rated speed rpm : 975
preed	+ Tolerance 1/min : + 5
13/1000 strokes : 5.5	+
heck tolerance	+ rack travel mm : 0.85
m3/1000s. : 9.0	+ Tolerance mm : +- 0.55
······································	+ Rated speed rpm : 1100
	1
) SETTING OF INJECTION PUMP	1
TH GOVERNOR	
	LOW IDLE
	<u> </u>
	1
JIDE SLEEVE POSITION	‡ control lever
	position degree : 77.0
ated speed rpm : 800	+ tolerance degree : + 4.0
Tour opera i più : Tour	1
ack travel in mm : 0.65	control lever
olerance mm : +- 0.35	position degree : 27.0
ter di joe insi	tolerance degree : +- 4.0
overnor spring	1
re-tension	Setting point w/out bumper sprin
lick setting x : 5.25	1 decently pointe wood bumper spirit
.ick setting x . J.E.	Rated speed rpm : 400
	+ rack travel mm : 5.50
LL LOAD DELIVERY AT FULL LOAD STOP	T TOOK CTOVER HAIT . J.JU
THE LUMP PELLYER! AT FULL LUMP STUP	Testing:
ited speed rpm : 900	I resting.
a a a a	Rated speed rpm : 400
neroid pressure	+ rack travel mm : 6.00
Pa : -	+ Tolerance mm : + 0.10
el. quantity	Toterance mm : T U.10
n3/1000 strokes : 101.5	7
3/1000 strokes : + 1.0	+ rack travel mm : 2.00
meck tolerance	Rated speed rpm : 440
3/1000s. : +- 3.0	+ Tolerance 1/min : +- 30
reed	†
3/1 000 s trokes : 3.5	+ Rated speed rpm : 100
eck tolerance	+
3/1 000 s. : 8.0	+ CRT mm min. : > 19.00
	+
	+
	TORQUE CONTROL
NTROL LEVER	+
	Rated speed rpm : 900
	+ rack travel mm : 11.25
	1 Table of a rot man 1 Tribes

Tolerance mm : **←** 0.05 500 Rated speed rpm : rack travel mm : 11.30 : **←** 0.10 Tolerance mm Rated speed rpm : 400 rack travel mm : 12.50 Tolerance mm : + 0.30 BREAKAWAY Rack travel in mm : 10.20 Rated speed rpm : 948 Tolerance 1/min : + 3 STARTING FUEL DELIVERY Rated speed rpm : 100 rack travel mm : 20.00 : +- 1.00 Tolerance mm Del. quantity cm3/1000 strokes : 142.0 cm3/1000 strokes : +- 8.0 Check tolerance cm3/1000s. : \leftarrow 11.0 LOW IDLE Rated speed rpm : 400 Del. quantity cm3/1000 strokes : 18.5 cm3/1000 strokes : \leftarrow 2.0 Check tolerance cm3/1000s. : ← 4.5 Spreed cm3/1000 strokes : 5.5 Check tolerance cm3/1000s. 9.0

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

Edition : 12.11.96 Test oil : ISO 4113

Combination No. : 9 400 083 460

Injection pump

Pump designation : PES6A100D320/3RS2827

EP type number : 9 400 084 030

Governor

Governer design. : RQV350...1200AB1267R

Governer no. : 9 420 080 319

Cust. part No. :

Customer-spec. information
Customer : CUMMINS
Motor : 6 CTA4-8.3L

Power KW : 179.1

TEST BENCH REQUIREMENTS

Inlet line : 3.2

Test oil inlet

temp. °C : 40
Tolerance °C : + 2.0

Overflow valve : 1 419 992 198

Inlet press. bar : 1.5

Test nozzle holde

assembly : 0 681 343 009

Opening pressure

bar : 173.5 Tolerance bar : +- 1.5

Test Lines : 1 680 750 014

Outside diameter : 6.0

x inside diameter: 2.0 x length mm : 600

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values ____

BEGINNING OF DELIVERY

Test pressure bar : 26.0 Tolerance bar : + 1.0

Prestroke mm : 2.75
Tolerance mm : + 0.05

Check

tolerance mm : + 0.10

Rack travel in mm: 10.50 Tolerance mm: + 1.50

Firing order : 1-5-3-6-2-

: 4

Phasing : 0-60-120-180-240

: -300

Beginning of delivery differende

and maximum rack

travel : 10.50
Tolerance mm : + 1.50
Difference * CS : 4.00

BASIC SETTING

Rated speed rpm : 1200

Rack travel in mm: 11.45

Tolerance mm : \leftarrow 0.05

Del. quantity cm3/1000 strokes : 130.0

cm3/1000 strokes : +- 1.0

Check tolerance cm3/1000s. : + 3.0

H22

	- Tolerance mm : + 1.30
Spreed	
cm3/1000 strokes : 3.5	
	FULL LOAD DELIVERY AT FULL LOAD STOP
Check tolerance	
cm3/1000s. : 8.0	- Rated speed rpm : 1100
+	- Aneroid pressure
Rated speed rpm : 350	- hPa : 1000
· · · · · · · · · · · · · · · · · · ·	- Del. quantity
4	- cm3/1000 strokes : 130.0
Rack travel in mm: 4.80	- cm3/1000 strokes : +- 1.0
Tolerance mm : + 0.10	- Check tolerance
Del. quantity	- cm3/1000S. : + 3.0
cm3/1000 strokes : 12.0	- Spreed
cm3/1000 strokes : + 2.0	- cm3/1000 strokes : 3.5
Check tolerance	- Check tolerance
cm3/1000s. : + 4.5	- cm3/1000s. : 8.0
Spreed	
cm3/1000 strokes : 5.5	
Check tolerance	
cm3/1000s. : 9.0	- CONTROL LEVER
CMS/10003 9.0 7	CONTROL LEVER
7	- - control lever
(D) SETTING OF THURSTION DUMD	
(B) SETTING OF INJECTION PUMP	position degree : 66.0
WITH GOVERNOR	- tolerance degree : +- 4.0
7	-
CULTAGE OF CHILD TO A LEG	control lever
GUIDE SLEEVE TRAVEL	- position degree : 122.0
4050	tolerance degree : + 4.0
Rated speed rpm : 1250	•
guide sleeve	- RATED SPEED
travel mm : 8.90	•
Tolerance mm : +- 0.10	- rack travel mm : 10.40
+	- Rated speed rpm : 1245
Rated speed rpm : 1000	- Tolerance 1/min : +- 5
guide sleeve	•
travel mm : 6.15	- rack travel mm : 4.00
Tolerance mm : + 0.25	- Rated speed rpm : 1320
+	- Tolerance 1/min : + 15
Rated speed rpm : 350	•
guide sleeve	- rack travel mm : 0.50
travel mm : 1.65	Tolerance mm : +- 0.50
Tolerance mm : + 0.25	- Rated speed rpm : 1450
+	•
Rated speed rpm : 550	•
guida sleeve	
travel mm : 3.25	- LOW IDLE
Tolerance mm : + 0.25	•
TO COT GITTE THE TOTAL OF THE T	
Rated speed rpm : 1320	· control lever
guide sleeve	position degree : 69.0
travel mm : 9.85	tolerance degree : +- 4.0
Tolerance mm : + 0.25	
	control lever
	position degree : 13.0
CUIDE SI EEVE POSITION	tolerance degree : +- 4.0
GUIDE SLEEVE POSITION	toterance degree : The 4.0
Pated aread now : 1220	Testing
Rated speed rpm : 1220	Testing:
Park Annual In many 14 FO	Datad apped and 250
Rack travel in mm: 16.50	Rated speed rpm : 350

H23

manl. Americal	. / 90	
rack travel mm	: 4.80 : + 0.10	t
Tolerance mm	: +- 0.10	+ Check
Detect eneed one	: 100	+ speed 1/min : > 80 + Check
Rated speed rpm	: 100	+ speed 1/min : < 290
CRT mm min.	: > 8.50	T Speed 1/111111 : \ 290
CICL IMM IMITI.	. > 0.50	I
Rated speed rpm	: 425	FUEL DELIVERY CHARACTERISTICS
	,,,,,	+
		+ Aneroid pressure
TORQUE CONTROL		→ hPa : 1000
		+ Rated speed rpm : 1200
Rated speed rpm	: 1200	<pre>Del. quantity</pre>
rack travel mm		+ cm3/1000 strokes : 121.5
Tolerance mm	: +- 0.05	+ cm3/1000 strokes : + 2.0
		+ Check tolerance
Rated speed rpm	: 750	+ cm3/1000s. : +- 4.0
rack travel mm	: 750 : 12.05	+ Spreed
rack travel mm Tolerance mm	: ← 0.05	+ cm3/1000 strokes : 5.0
		+ Check tolerance
Rated speed rpm	: 1100	+ cm3/100Gs. : 8.0
rack travel mm		+
Tolerance mm		Aneroid pressure
		→ hPa : 1000
Rated speed rpm	: 1150	+ Rated speed rpm : 750
rack travel mm	: 11.75	Del. quantity
olerance mm		+ cm3/1000 strokes : 135.5
		+ cm3/1000 strokes : + 2.0
NEROID/ALTITUDE		+ cm3/1000s. : +- 4.0
OMPENSATOR TEST		Spreed
		+ cm3/1000 strokes : 5.0
		→ Check tolerance
TTING		+ cm3/1000s. : 8.0
		+
Rated speed rpm		+ Aneroid pressure
Pressure hPa	: 1000	+ hPa :
rack travel mm	: 12.05	+ Rated speed rpm : 500
Tolerance mm	: ← 0.05	Del. quantity
		+ cm3/1000 strokes : 103.0
EASUREMENT		+ cm3/1000 strokes : + 1.0
		Check tolerance cm3/1000s. : + 3.0
ressure hPa		+ cm3/1000s. : $+$ 3.0
ated speed rpm	: 500	+ Spreed
	200	+ cm3/1000 strokes : 3.5
lated speed rpm	: 500	Check tolerance cm3/1000s. : 8.0
• -		+ cm3/1000s. : 8.0
ressure hPa		†
ack travel mm	: 1.70	DESIGNATION
olerance mm	: +- 0.10	+ BREAKAWAY
	. 770	†
Pressure hPa		T Dook + 40 /0
rack travel mm	: U.45	Rack travel in mm: 10.40
rack travel mm Tolerance mm	: ← 0.05	Rated speed rpm : 1245 Tolerance 1/min : + 5
		+ loterance //min : + 5
START CUT-OUT		I
SIAKI CUITUUI		I
Rated speed rom	: > 100	T STARTING FUEL DELIVERY
Rated speed rpm Rated speed rpm	: < 270	+
opoca i pili		1

Rated speed rpm	:		100
rack travel mm	:		20.00
Tolerance mm	:	+-	1.00
Del. quantity			
cm3/1000 strokes	:		173.0
cm3/1000 strokes	:	+-	8.0
Check tolerance			
cm3/1000s.	:	+-	11.0

LOW IDLE

Rated speed rpm Del. quantity	:	350
cm3/1000 strokes cm3/1000 strokes	:	12.0 2.0
Check tolerance cm3/1000s.	: +-	4.5
Spreed cm3/1000 strokes	:	5.5
Check tolerance cm3/1000s.	•	9.0

Note remarks

Refer to Service Info for test and adjustment instructions.
See microcard(s) W400/...

Edition : 11.11.96 Test oil : ISO 4113

Combination No. : 9 400 085 243

Injection pump

Pump designation : PES4A80D320RS1282-1

EP type number : 9 400 083 097

Governor

Governor design. : RS350/1500A2C2073

: -2R

Governer no. : 9 420 083 269

Cust. part No. :

Customer—spec. information Customer : MWM Motor : D 229-4

TEST BENCH REQUIREMENTS

Inlet line : 3.1

Test oil inlet

temp. °C : 40
Tolerance °C : +- 2.0

Overflow valve : 1 419 992 198

Inlet press. bar : 1.5

Test nozzle holde

assembly : 0 681 343 009

Opening pressure

bar : 173.5 Tolerance bar : + 1.5

Test Lines : 1 680 750 003

Outside diameter : 6.0

x inside diameter: 2.0 x length mm : 600

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values _____

BEGINNING OF DELIVERY

Test pressure bar : 26.0 Tolerance bar : + 1.0

Prestroke mm : 2.70
Tolerance mm : +- 0.05
Check
tolerance mm : +- 0.10

Rack travel in mm : 10.50
Tolerance mm : +- 1.50

Firing order : 1-3-4-2

Phasing : 0-90-180-270

Tolerance : +- 0.50 Check

uneck

tolerance $^{\circ}NW$: +- 0.75

Beginning of delivery differende

and maximum rack

travel : 10.50
Tolerance mm : + 1.50
Difference * CS : 4.50

BASIC SETTING

Rated speed rpm : 1500

Rack travel in mm: 9.25

Tolerance mm : + 0.05

Del. quantity

cm3/1000 strokes : 58.5

cm3/1000 strokes : + 0.5

Check tolerance cm3/1000s.	: +- 2.0	control lever position degree	: 117.0
Spreed cm3/1000 strokes	: 2.5	tolerance degree	
Charle talanana		+ RATED SPEED	
Check tolerance cm3/1000s.	: 4.0	rack travel mm Rated speed rpm	
Rated speed rpm	: 350	† Tolerance 1/min	: +- 5
		+ rack travel mm	: 4.00
Rack travel in mm		+ Rated speed rpm	: 1640
Tolerance mm	: +- 0.10	+ Tolerance 1/min	: +- 15
Del. quantity cm3/1000 strokes	: 9.0	T rack travel mm	: 1.00
cm3/1000 strokes		Tolerance mm	: + 0.70
Check tolerance		+ Rated speed rpm	-
cm3/1000s.	: +- 3.5	+	
Spreed		†	
cm3/1000 strokes Check tolerance	: 4.0	LOW IDLE	
cm3/1000s.	: 6.0	+ LOW IDEE	
		t control lever	
(B) SETTING OF IN.	IECTION PUMP	position degree	: 60.0
WITH GOVERNOR	, , , , , , , , , , , , , , , , , , , ,	tolerance degree	
		Testing:	
GUIDE SLEEVE POSIT	rton	Rated speed rpm	: 350
	. 20.1	+ rack travel mm	: 6.10
Rated speed rpm	: 800	† Tolerance mm	: + 0.10
Rack travel in mm	: 0.65	rack travel mm	: 4.00
Tolerance mm		+ Rated speed rpm	: 460
		+ Tolerance 1/min	: +- 30
governor spring		†	250
pre-tension click setting x	: 5.50	+ Rated speed rpm	: 250
ctick setting x	.).)0	CRT mma main.	: > 6.80
FULL LOAD DELIVERY	AT FULL LOAD STOP	+ Rated speed rpm	: 550
	1500	+	. 7.00
Rated speed rpm	: 1500	CRT mm max.	: < 3.20
Aneroid pressure hPa		I	
Del. quantity	•	TORQUE CONTROL	
cm3/1000 strokes	: 58.5	101132	
cm3/1000 strokes	: + 0.5	Rated speed rpm	: 1500
Check tolerance		🕂 rack travel mm	: 9.25
cm3/1000s.	: 	† Tolerance mm	: ← 0.05
Spreed	. 25	† Botod aread are	. 500
cm3/1000 strokes Check tolerance	. 2.3	Rated speed rpm rack travel mm	: 10.65
cm3/1000s.	: 4.0	Tolerance mm	: +- 0.05
		Doted aread ===	
		+ Rated speed rpm	: 900 : 10.30
CONTROL LEVER		rack travel mm Tolerance mm	: +- 0.10
CONTINUE FEATU		(5.10

Rated speed rpm rack travel mm Tolerance mm	: 1200 : 9.65 : +- 0.15	
FUEL DELIVERY CHA	RACTERISTICS	
Aneroid pressure		
hPa	:	
Rated speed rpm	: 500	
Del. quantity	50.5	
cm3/1000 strokes	59.5	
cm3/1000 strokes	: + 1.5	
Check tolerance cm3/1000s.	: +- 3.0	
Spreed	; +- 3.0	
om3/1000 strokes	: 3.5	
Check tolerance	• 5.7	
cm3/1000s.	; 7.0	
(100001		
Aneroid pressure		
hPa	-	
Rated speed rpm	900	
Del. quantity		
cm3/1000 strokes	: 64.0	
cm3/1000 strokes	: ← 1.5	
Check tolerance		
cm3/1000s.	: +- 3.0	
Spreed		
cm3/1000 strokes	: 3.5	
Check tolerance	7.0	
cm3/1000s.	: 7.0	•
BREAKAWAY		······································
ON EDITORIA (
Rack travel in mm	: 8.20	
Rated sneed rom	: 1585	
Rated speed rpm Tolerance 1/min	: +- 5	
STARTING FUEL DEL	IVERY	<u></u>
Rated speed rpm	: 100	
rack travel mm		
Tolerance mm	: +- 1.00	

Del. quantity cm3/1000 strokes : 9.0 cm3/1000 strokes : 1.5 Check tolerance cm3/1000s. : + 3.5 Spreed cm3/1000 strokes : 4.0 Check tolerance cm3/1000s. : 6.0

End of test specification sheet

LOW IDLE

Rated speed rpm : 350

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

Edition : 11.11.96 Test oil : ISO 4113

Combination No. : 9 400 085 255

Injection pump

Pump designation : PES5A80D410RS2526 EP type number : 9 400 093 007

Governor

Governer design. : RS325/1400A0C2212L Governer no. : 9 420 083 295

Cust. part No. :

Customer-spec. information

Customer : DEUTZ-ARGENTINA

Motor : F5L913

TEST BENCH REQUIREMENTS

Inlet line : 4.2

Test oil inlet

temp. °C : 40
Tolerance °C : + 2.0

Overflow valve : 1 419 992 198

Inlet press. bar : 1.5

Test nozzle holde

assembly : 0 681 343 009

Opening pressure

bar : 173.5 Tolerance bar : ← 1.5

Test lines : 1 680 750 003

Outside diameter : 6.0

x inside diameter: 2.0

x length mm : 600

REMARKS

(A) INJECTION PUMP SETTING VALUES Set equal delivery quant.

per values ____

BEGINNING OF DELIVERY

Test pressure bar : 26.0 Tolerance bar : + 1.0

Prestroke mm : 1.95
Tolerance mm : + 0.05
Check
tolerance mm : + 0.10

Rack travel in mm : 10.50 Tolerance mm : +- 1.50

Firing order : 1-3-5-4-2

Phasing : 0-72-144-216-288

BASIC SETTING

Rated speed rpm : 1400

Rack travel in mm : 11.55

Tolerance mm : + 0.05

Del. quantity

cm3/1000 strokes : 66.0

cm3/1000 strokes : + 0.5

Check tolerance

cm3/1000s. : +- 2.0

Spreed

cm3/1000 strokes : 2.5

Check tolerance

cm3/1000s. : 4.0

Rated speed rpm : 325

Rack travel in mm : 8.50

Tolerance mm	: + 0.10	† Tolerance 1/min	: +- 15
Del. quantity		+	
cm3/1000 strokes cm3/1000 strokes	: 11.0	+ rack travel mm	: 1.00
Chack talenance	: +- 1.5	Tolerance mm Rated speed rpm	: +- 0.70
Check tolerance cm3/1000s.	٠ ـــ ٦ 5	T Kated Speed rpill	. 1000
Spreed	5.5	Ţ	
cm3/1000 strokes	: 4.0		
Check tolerance		LOW IDLE	
cm3/1000s.	: 6.0	+	
		†	
(D) CETTING OF TA	LIECTION DUMP	+ control lever	. 70.0
(B) SETTING OF IN WITH GOVERNOR	MECITON FOMP	<pre>position degree tolerance degree</pre>	· +- / 0.0
MILL GOAEKIAOK		T coterance degree	4.0
		+ Testing:	
		- +	
GUIDE SLEEVE POSI	ITION	+ Rated speed rpm	: 325
5 4 - 4	. 900	rack travel mm Tolerance mm	: 8.50
Rated speed rpm	: 800	† Tolerance mm	: +- 0.10
Rack travel in mm	a: 0.65	rack travel mm	: 6.00
Tolerance mm		+ Rated speed rpm	
		+ Tolerance 1/min	
governor spring		+	
pre-tension	/ 00	+ Rated speed rpm	: 280
click setting x	: 4.00	CRT mm min.	. \ 0 00
 			. > 8.00
FULL LOAD DELIVER	RY AT FULL LOAD STOP	Rated speed rpm	: 550
	4400	+	
Rated speed rpm		CRT mm max.	: < 4.40
Aneroid pressure hPa	<u> </u>	Ī	
Del. quantity	•	TORQUE CONTROL	
cm3/1000 strokes	: 66.0	+	
cm3/1000 strokes		Rated speed rpm	: 1400
Check tolerance		🕂 rack travel mm	: 11.55
cm3/1000s.	: +- 2.0	† Tolerance mm	: ← 0.05
Spreed	2.5	†	
cm3/1000 strokes	: 2.5	+ Rated speed rpm	
Check tolerance	: 4.0	+ rack travel mm + Tolerance mm	
cm3/1000s.	. 4.0	T roterance min	0.0
		Rated speed rpm	: 1100
		rack travel mm	: 11.95
CONTROL LEVER		† Tolerance mm	: +- 0.15
sambasi lawan		1	
control lever position degree	: 113.0	Ī	
tolerance degree		$\overline{\bot}$	
totol and acgive	• • • • • • • • • • • • • • • • • • •	<u> </u>	
RATED SPEED		+ FUEL DELIVERY CHA	RACTERISTICS
	40.00	†	
rack travel mm	: 10.50	+ Aneroid pressure	•
Rated speed rpm		+ hPa + Rated speed rpm	: 500
Tolerance 1/min	. +-)	+ Del. quantity	.)00
rack travel mm	: 4.00	cm3/1000 strokes	: 56.5
Rated speed rpm		+ cm3/1000 strokes	
opcod .pm		,	·

Check tolerance	
cm3/1000s. Spreed	: ← 3.0
cm3/1000 strokes	: 3.5
Check tolerance cm3/1000s.	: 7.0
CM3/10005.	: 7.0
Aneroid pressure	•
hPa Rated speed rpm	: - 1100
Del. quantity	47.0
cm3/1000 strokes cm3/1000 strokes	: 63.0 : +- 1.5
Check tolerance	
cm3/1000s. Spreed	: ← 3.0
cm3/1000 strokes	: 3.5
Check tolerance cm3/1000s.	. 7.0
CIID/ (UUUS.	/ • U
BREAKAWAY	
Rack travel in mm	
Rated speed rpm	: 1445
Tolerance 1/min	: +- 5
STARTING FUEL DEL	TAEKI
Rated speed rpm rack travel mm Tolerance mm	: 100 : 20.00 : +- 1.00
rack travel mm	: 20.00
rack travel mm Tolerance mm LOW IDLE Rated speed rpm	: 20.00 : +- 1.00
rack travel mm Tolerance mm LOW IDLE Rated speed rpm Del. quantity	: 20.00 : + 1.00 : 325
rack travel mm Tolerance mm LOW IDLE Rated speed rpm Del. quantity cm3/1000 strokes cm3/1000 strokes	: 20.00 : +- 1.00
rack travel mm Tolerance mm LOW IDLE Rated speed rpm Del. quantity cm3/1000 strokes cm3/1000 strokes Check tolerance	: 20.00 : + 1.00 : 325 : 11.0 : + 1.5
rack travel mm Tolerance mm LOW IDLE Rated speed rpm Del. quantity cm3/1000 strokes cm3/1000 strokes Check tolerance cm3/1000s.	: 20.00 : + 1.00 : 325 : 11.0
rack travel mm Tolerance mm Tolerance mm LOW IDLE Rated speed rpm Del. quantity cm3/1000 strokes cm3/1000 strokes Check tolerance cm3/1000s. Spreed cm3/1000 strokes	: 20.00 : + 1.00 : 325 : 11.0 : + 1.5
rack travel mm Tolerance mm Tolerance mm LOW IDLE Rated speed rpm Del. quantity cm3/1000 strokes cm3/1000 strokes check tolerance cm3/1000s. Spreed cm3/1000 strokes Check tolerance	: 20.00 : + 1.00 : + 1.00 : + 1.5 : + 3.5 : 4.0
rack travel mm Tolerance mm Tolerance mm LOW IDLE Rated speed rpm Del. quantity cm3/1000 strokes cm3/1000 strokes Check tolerance cm3/1000s. Spreed cm3/1000 strokes	: 20.00 : + 1.00 : + 325 : 11.0 : + 1.5 : + 3.5
rack travel mm Tolerance mm Tolerance mm LOW IDLE Rated speed rpm Del. quantity cm3/1000 strokes cm3/1000 strokes check tolerance cm3/1000s. Spreed cm3/1000 strokes Check tolerance	: 20.00 : + 1.00 : + 1.00 : + 1.5 : + 3.5 : 4.0
rack travel mm Tolerance mm Tolerance mm LOW IDLE Rated speed rpm Del. quantity cm3/1000 strokes cm3/1000 strokes check tolerance cm3/1000s. Spreed cm3/1000 strokes Check tolerance	: 20.00 : + 1.00 : + 1.00 : + 1.5 : + 3.5 : 4.0

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

: 11.11.96 Test oil

Combination No. : 9 400 085 267

Injection pump

Pump designation : PES6A95D410RS2751 EP type number : 9 400 084 013

Governor

Governer design. : RSV650...1250A8C2231

: -1L

Governer no. : 9 420 083 230

Cust. part No. :

Customer-spec. information Customer : FORD
Motor : 6,6 L T
Power KW : 112.0 : 6,6 L TC

TEST BENCH REQUIREMENTS

Inlet line : 4.1

Test oil inlet

temp. °C : 40
Tolerance °C : +- 2.0

Overflow valve : 1 419 992 198

Inlet press. bar : 1.5

Test nozzle holde

: 1 688 901 017 assembly

Opening pressure

: 208.5 bar Tolerance bar : + 1.5

Test lines : 1 680 750 015

Outside diameter : 6.0

x inside diameter : 3.0 x length mm : 600

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values _____

BEGINNING OF DELIVERY

Test pressure bar: 26.0 Tolerance bar : +- 1.0

Prestroke mm : 3.20Tolerance mm : + 0.05

Check

: +- 0.10 tolerance mm

Rack travel in mm : 10.50 Tolerance mm : +- 1.50

Firing order : 1-5-3-6-2-

: 4

: 0-60-120-180-240 Phasing

: -300

Beginning of delivery differende

and maximum rack

: 10.50 travel Tolerance mm : +- 1.50 Difference CS : 6.50

BASIC SETTING

Rated speed rpm : 1220

Rack travel in mm : 11.95 Tolerance mm : \leftarrow 0.05

Del. quantity

cm3/1000 strokes : 92.0

cm3/1000 strokes : + 1.0

Check tolerance

cm3/1000s. : +- 3.0

1	
Spreed	· control lever
cm3/1000 strokes : 3.5	position degree : 101.0
	tolerance degree : +- 4.0
Check tolerance	. DATES OBEES
cm3/1000s. : 8.0	RATED SPEED
Rated speed rpm : 650	rack travel mm : 10.90
1	Rated speed rpm : 1268
 	Tolerance 1/min : +- 3
Rack travel in mm: 6.80 +	
Tolerance mm : +- 0.10	rack travel mm : 4.00 Rated speed rpm : 1303
Del. quantity + cm3/1000 strokes : 9.0 +	Tolerance 1/min : +- 3
cm3/1000 strokes : + 2.0	-
Check tolerance	rack travel mm : 0.85
cm3/1000s. : +- 4.5	Tolerance mm : + 0.55
Spreed +	Rated speed rpm : 1420
cm3/1000 strokes : 5.5 + Check tolerance	•
cm3/1000s. : 9.0	· · · · · · · · · · · · · · · · · · ·
+	LOW IDLE
+	•
(B) SETTING OF INJECTION PUMP	
WITH GOVERNOR	control lever position degree : 76.0
	tolerance degree : +- 4.0
	
GUIDE SLEEVE POSITION	Setting point w/out bumper spring
+	Setting point w/out bumper spring Rated speed rpm : 650
Rated speed rpm : 800	•
Rated speed rpm : 800 Rack travel in mm : 0.65	Rated speed rpm : 650 rack travel mm : 6.30
Rated speed rpm : 800	Rated speed rpm : 650
Rated speed rpm : 800 Rack travel in mm : 0.65 Tolerance mm : + 0.35	Rated speed rpm : 650 rack travel mm : 6.30
Rated speed rpm : 800 Rack travel in mm : 0.65	Rated speed rpm : 650 rack travel mm : 6.30 Testing: Rated speed rpm : 650 rack travel mm : 6.80
Rated speed rpm : 800 Rack travel in mm : 0.65 Tolerance mm : +- 0.35 governor spring	Rated speed rpm : 650 rack travel mm : 6.30 Testing: Rated speed rpm : 650
Rated speed rpm : 800 Rack travel in mm : 0.65 Tolerance mm : +- 0.35 governor spring pre-tension	Rated speed rpm : 650 rack travel mm : 6.30 Testing: Rated speed rpm : 650 rack travel mm : 6.80 Tolerance mm : + 0.10
Rated speed rpm : 800 Rack travel in mm : 0.65 Tolerance mm : + 0.35 governor spring pre-tension click setting x : 3.25	Rated speed rpm : 650 rack travel mm : 6.30 Testing: Rated speed rpm : 650 rack travel mm : 6.80 Tolerance mm : + 0.10 rack travel mm : 2.00
Rated speed rpm : 800 Rack travel in mm : 0.65 Tolerance mm : +- 0.35 governor spring pre-tension	Rated speed rpm : 650 rack travel mm : 6.30 Testing: Rated speed rpm : 650 rack travel mm : 6.80 Tolerance mm : + 0.10
Rated speed rpm : 800 Rack travel in mm : 0.65 Tolerance mm : + 0.35 governor spring pre-tension click setting x : 3.25	Rated speed rpm : 650 rack travel mm : 6.30 Testing: Rated speed rpm : 650 rack travel mm : 6.80 Tolerance mm : +- 0.10 rack travel mm : 2.00 Rated speed rpm : 760 Tolerance 1/min : +- 30
Rated speed rpm : 800 Rack travel in mm : 0.65 Tolerance mm : + 0.35 governor spring pre-tension click setting x : 3.25 FULL LOAD DELIVERY AT FULL LOAD STOP Rated speed rpm : 1220 Aneroid pressure	Rated speed rpm : 650 rack travel mm : 6.30 Testing: Rated speed rpm : 650 rack travel mm : 6.80 Tolerance mm : + 0.10 rack travel mm : 2.00 Rated speed rpm : 760
Rated speed rpm : 800 Rack travel in mm : 0.65 Tolerance mm : +- 0.35 governor spring pre-tension click setting x : 3.25 FULL LOAD DELIVERY AT FULL LOAD STOP Rated speed rpm : 1220 Aneroid pressure hPa :	Rated speed rpm : 650 rack travel mm : 6.30 Testing: Rated speed rpm : 650 rack travel mm : 6.80 Tolerance mm : + 0.10 rack travel mm : 2.00 Rated speed rpm : 760 Tolerance 1/min : + 30 Rated speed rpm : 100
Rated speed rpm : 800 Rack travel in mm : 0.65 Tolerance mm : +- 0.35 governor spring pre-tension click setting x : 3.25 FULL LOAD DELIVERY AT FULL LOAD STOP Rated speed rpm : 1220 Aneroid pressure hPa : - Del. quantity	Rated speed rpm : 650 rack travel mm : 6.30 Testing: Rated speed rpm : 650 rack travel mm : 6.80 Tolerance mm : + 0.10 rack travel mm : 2.00 Rated speed rpm : 760 Tolerance 1/min : + 30
Rated speed rpm : 800 Rack travel in mm : 0.65 Tolerance mm : +- 0.35 governor spring pre-tension click setting x : 3.25 FULL LOAD DELIVERY AT FULL LOAD STOP Rated speed rpm : 1220 Aneroid pressure hPa : - Del. quantity cm3/1000 strokes : 92.0	Rated speed rpm : 650 rack travel mm : 6.30 Testing: Rated speed rpm : 650 rack travel mm : 6.80 Tolerance mm : + 0.10 rack travel mm : 2.00 Rated speed rpm : 760 Tolerance 1/min : + 30 Rated speed rpm : 100
Rated speed rpm : 800 Rack travel in mm : 0.65 Tolerance mm : +- 0.35 governor spring pre-tension click setting x : 3.25 FULL LOAD DELIVERY AT FULL LOAD STOP Rated speed rpm : 1220 Aneroid pressure hPa : - Del. quantity	Rated speed rpm : 650 rack travel mm : 6.30 Testing: Rated speed rpm : 650 rack travel mm : 6.80 Tolerance mm : + 0.10 rack travel mm : 2.00 Rated speed rpm : 760 Tolerance 1/min : + 30 Rated speed rpm : 100
Rated speed rpm : 800 Rack travel in mm : 0.65 Tolerance mm : + 0.35 governor spring pre-tension click setting x : 3.25 FULL LOAD DELIVERY AT FULL LOAD STOP Rated speed rpm : 1220 Aneroid pressure hPa : - Del. quantity cm3/1000 strokes : 92.0 cm3/1000 strokes : + 1.0 Check tolerance cm3/1000s. : + 3.0	Rated speed rpm : 650 rack travel mm : 6.30 Testing: Rated speed rpm : 650 rack travel mm : 6.80 Tolerance mm : + 0.10 rack travel mm : 2.00 Rated speed rpm : 760 Tolerance 1/min : + 30 Rated speed rpm : 100 CRT mm min. : > 19.00
Rated speed rpm : 800 Rack travel in mm : 0.65 Tolerance mm : + 0.35 governor spring pre-tension click setting x : 3.25 FULL LOAD DELIVERY AT FULL LOAD STOP Rated speed rpm : 1220 Aneroid pressure hPa : - Del. quantity cm3/1000 strokes : 92.0 cm3/1000 strokes : + 1.0 Check tolerance cm3/1000s. : + 3.0 Spreed	Rated speed rpm : 650 rack travel mm : 6.30 Testing: Rated speed rpm : 650 rack travel mm : 6.80 Tolerance mm : + 0.10 rack travel mm : 2.00 Rated speed rpm : 760 Tolerance 1/min : + 30 Rated speed rpm : 100 CRT mm min. : > 19.00 TORQUE CONTROL Rated speed rpm : 1220
Rated speed rpm : 800 Rack travel in mm : 0.65 Tolerance mm : + 0.35 governor spring pre-tension click setting x : 3.25 FULL LOAD DELIVERY AT FULL LOAD STOP Rated speed rpm : 1220 Aneroid pressure hPa : - Del. quantity cm3/1000 strokes : 92.0 cm3/1000 strokes : + 1.0 Check tolerance cm3/1000s. : + 3.0 Spreed cm3/1000 strokes : 3.5	Rated speed rpm : 650 rack travel mm : 6.30 Testing: Rated speed rpm : 650 rack travel mm : 6.80 Tolerance mm : +- 0.10 rack travel mm : 2.00 Rated speed rpm : 760 Tolerance 1/min : +- 30 Rated speed rpm : 100 CRT mm min. : > 19.00 TORQUE CONTROL Rated speed rpm : 1220 rack travel mm : 11.95
Rated speed rpm : 800 Rack travel in mm : 0.65 Tolerance mm : + 0.35 governor spring pre-tension click setting x : 3.25 FULL LOAD DELIVERY AT FULL LOAD STOP Rated speed rpm : 1220 Aneroid pressure hPa : - Del. quantity cm3/1000 strokes : 92.0 cm3/1000 strokes : + 1.0 Check tolerance cm3/1000s. : + 3.0 Spreed cm3/1000 strokes : 3.5 Check tolerance	Rated speed rpm : 650 rack travel mm : 6.30 Testing: Rated speed rpm : 650 rack travel mm : 6.80 Tolerance mm : + 0.10 rack travel mm : 2.00 Rated speed rpm : 760 Tolerance 1/min : + 30 Rated speed rpm : 100 CRT mm min. : > 19.00 TORQUE CONTROL Rated speed rpm : 1220
Rated speed rpm : 800 Rack travel in mm : 0.65 Tolerance mm : + 0.35 governor spring pre-tension click setting x : 3.25 FULL LOAD DELIVERY AT FULL LOAD STOP Rated speed rpm : 1220 Aneroid pressure hPa : - Del. quantity cm3/1000 strokes : 92.0 cm3/1000 strokes : + 1.0 Check tolerance cm3/1000s. : + 3.0 Spreed cm3/1000 strokes : 3.5	Rated speed rpm : 650 rack travel mm : 6.30 Testing: Rated speed rpm : 650 rack travel mm : 6.80 Tolerance mm : + 0.10 rack travel mm : 2.00 Rated speed rpm : 760 Tolerance 1/min : + 30 Rated speed rpm : 100 CRT mm min. : > 19.00 TORQUE CONTROL Rated speed rpm : 1220 rack travel mm : 11.95
Rated speed rpm : 800 Rack travel in mm : 0.65 Tolerance mm : + 0.35 governor spring pre-tension click setting x : 3.25 FULL LOAD DELIVERY AT FULL LOAD STOP Rated speed rpm : 1220 Aneroid pressure hPa : - Del. quantity cm3/1000 strokes : 92.0 cm3/1000 strokes : + 1.0 Check tolerance cm3/1000s. : + 3.0 Spreed cm3/1000 strokes : 3.5 Check tolerance	Rated speed rpm : 650 rack travel mm : 6.30 Testing: Rated speed rpm : 650 rack travel mm : 6.80 Tolerance mm : + 0.10 rack travel mm : 2.00 Rated speed rpm : 760 Tolerance 1/min : + 30 Rated speed rpm : 100 CRT mm min. : > 19.00 TORQUE CONTROL Rated speed rpm : 1220 rack travel mm : 11.95 Tolerance mm : + 0.05

CONTROL LEVER

FUEL DELIVERY CHARACTERISTICS

Aneroid pressure

hPa Rated speed rpm : 800

Del. quantity

cm3/1000 strokes : 79.0 cm3/1000 strokes : +-2.0

Check tolerance

cm3/1000s. : +- 4.0

Spreed

cm3/1000 strokes : 5.0

Check tolerance

cm3/1000s.: 8.0

BREAKAWAY

Rack travel in mm : 10.90
Rated speed rpm : 1268
Tolerance 1/min : + 3

STARTING FUEL DELIVERY

Rated speed rpm : 100 rack travel mm : 20.50 : +- 0.50 Tolerance mm Del. quantity

cm3/1000 strokes : 160.0 cm3/1000 strokes : +- 8.0

Check tolerance

cm3/1000s. : ← 11.0

LOW IDLE

Rated speed rpm : 650

Del. quantity

cm3/1000 strokes : 9.0 cm3/1000 strokes : +- 2.0

Check tolerance

: +- 4.5 cm3/1000s.

Spreed

cm3/1000 strokes : 5.5

Check tolerance

9.0 cm3/1000s.

End of test specification sheet

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

Edition : 11.11.96 Test oil : ISO 4113

Combination No. : 9 400 085 270

Injection pump

Pump designation : PES6A90D32ORS2718 EP type number : 9 400 084 003

Governor

Governer design. : RSV350...1400A2C2215

: -1R

Governer no. : 9 420 083 231

Cust. part No. :

Customer-spec. information

Customer : MWM Motor : D229/6

TEST BENCH REQUIREMENTS

Inlet line : 3.1

Test oil inlet

temp. °C : 40 Tolerance °C : +- 2.0

Overflow valve : 1 419 992 198

Inlet press. bar : 1.5

Test nozzle holde

assembly : 0 681 343 009

Opening pressure

bar : 173.5 Tolerance bar : + 1.5

Test lines : 1 680 750 014

Outside diameter : 6.0

x inside diameter : 2.0
x length mm : 600

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values _____

BEGINNING OF DELIVERY

Test pressure bar : 26.0 Tolerance bar : +- 1.0

Prestroke mm : 2.75
Tolerance mm : + 0.05
Check

tolerance mm : +- 0.10

Rack travel in mm : 10.50 Tolerance mm : +- 1.50

Firing order : 1-5-3-6-2-

: 4

Phasing : 0-60-120-180-240

: -300

Beginning of delivery differende

and maximum rack

travel : 10.50
Tolerance mm : + 1.50
Difference * CS : 3.50

BASIC SETTING

Rated speed rpm : 1400

Rack travel in mm: 8.55 Tolerance mm: + 0.05

Del. quantity

cm3/1000 strokes : 62.0

cm3/1000 strokes : +- 0.5

Check tolerance cm3/1000s.

: +- 2.5

1	
Spreed	- - control lever
cm3/1000 strokes : 3.0	position degree : 59.0
	tolerance degree : + 4.0
Check tolerance	. DATES ODES
cm3/1000s. : 7.0	- RATED SPEED
Rated speed rpm : 350	rack travel mm : 7.50
+	Rated speed rpm : 1445
+	Tolerance 1/min : + 5
Rack travel in mm: 5.50	
Tolerance mm : + 0.10	rack travel mm : 4.00
Del. quantity + cm3/1000 strokes : 13.0 +	Rated speed rpm : 1490 Tolerance 1/min : +- 15
cm3/1000 strokes : + 2.0	. Toterance Minn 4-4 15
Check tolerance	rack travel mm : 0.85
cm3/1000s. : +- 4.0	Tolerance mm : + 0.55
Spreed	Rated speed rpm : 1650
cm3/1000 strokes : 4.5	
Check tolerance	•
cm3/1000s. : 7.0	· LOW IDLE
(B) SETTING OF INJECTION PUMP	
WITH GOVERNOR	control lever
+	position degree : 25.0
†	tolerance degree : +- 4.0
GUIDE SLEEVE POSITION	Setting point w/out bumper spring
+	
Rated speed rpm : 800	Rated speed rpm : 350
T	rack travel mm : 5.00
Rack travel in mm: 0.65 + Tolerance mm: + 0.35 +	Testing:
Toterance min : += 0.33	resting.
governor spring	Rated speed rpm : 350
pre-tension +	rack travel mm : 5.50
click setting x : 5.00	Tolerance mm : +- 0.10
.	rack travel mm : 2.00
FULL LOAD DELIVERY AT FULL LOAD STOP	Rated speed rpm : 590
TOLE LOAD DELIVERY AT TOLE LOAD OTO!	Tolerance 1/min : +- 30
Rated speed rpm : 1400	
Aneroid pressure +	Rated speed rpm : 100
hPa : - +	
Del. quantity	CRT mm min. : > 19.00
cm3/1000 strokes : 62.0 + cm3/1000 strokes : + 0.5 +	
Check tolerance	TORQUE CONTROL
cm3/1000s. : +- 2.5	TORAGE CONTINGE
Spreed	Rated speed rpm : 1400
cm3/1000 strokes : 3.0	rack travel mm : 8.55
Check tolerance	Tolerance mm : +- 0.05
cm3/1000s. : 7.0 +	500
†	Rated speed rpm : 500
	rack travel mm : 9.15 Tolerance mm : ÷- 0.05
CONTROL LEVER	roterance mak U.UJ
+	Rated speed rpm : 900
+	Rated speed rpm : 900 rack travel mm : 8.95

Tolerance mm	: + 0.15
FUEL DELIVERY CHA	ARACTERISTICS
Aneroid pressure	
hPa Rated speed rpm	500
Del. quantity cm3/1000 strokes cm3/1000 strokes	: 57.0 : ← 1.5
Check tolerance cm3/1000s.	: +- 3.5
Spreed cm3/1000 strokes	: 4.0
Check tolerance cm3/1000s.	: 8.0
Aneroid pressure hPa	: -
Rated speed rpm Del. quantity	: 900
cm3/1000 strokes cm3/1000 strokes	: 65.0 : ← 1.5
Check tolerance cm3/1000s.	: ← 3.5
Spreed cm3/1000 strokes	: 4.0
Check tolerance cm3/1000S.	: 8.0
BREAKAWAY	
Rack travel in mm Rated speed rpm Tolerance 1/min	: 7.50 : 1445 : +- 5
STARTING FUEL DEL	IVERY
Rated speed rpm rack travel mm Tolerance mm	: 100 : 20.00 : + 1.00
LOW IDLE	
Rated speed rpm	: 350
Del. quantity cm3/1000 strokes cm3/1000 strokes	: 13.0

Check tolerance cm3/1000s. : +- 4.0 Spreed cm3/1000 strokes : 4.5 Check tolerance cm3/1000s. : 7.0

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

Edition : 11.11.96 Test oil : ISO 4113

Combination No. : 9 400 085 286

Injection pump

Pump designation : PES6A90D32ORS2701 EP type number : 9 400 083 094

Governor

Governer design. : RSV350...1150A2C2097

: -2R

Governer no. : 9 420 083 224

Cust. part No. :

Customer-spec. information

Customer : MWM
Motor : D 229-6
Power KW : 81.0

TEST BENCH REQUIREMENTS

Inlet line : 3.1

Test oil inlet

temp. °C : 40
Tolerance °C : + 2.0

Overflow valve : 1 419 992 198

Inlet press. bar : 1.5

Test nozzle holde

assembly : 0 681 343 009

Opening pressure

bar : 173.5 Tolerance bar : +- 1.5

Test lines : 1 680 750 003

Outside diameter : 6.0

x inside diameter: 2.0 x length mm : 600

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values _____

BEGINNING OF DELIVERY

Test pressure bar : 26.0 Tolerance bar : + 1.0

Prestroke mm : 2.70
Tolerance mm : +- 0.05

Check

tolerance mm : + 0.10

Rack travel in mm : 10.50 Tolerance mm : + 1.50

Firing order : 1-5-3-6-2-

: 4

Phasing : 0-60-120-180-240

: -300

Beginning of delivery differende

and maximum rack

travel : 10.50
Tolerance mm : + 1.50
Difference ° CS : 4.50

BASIC SETTING

Rated speed rpm : 1150

Rack travel in mm : 9.25

Tolerance mm : + 0.05

Del. quantity

cm3/1000 strokes : 62.5

cm3/1000 strokes : +- 0.5

Check tolerance

cm3/1000s. : + 2.5

Spreed cm3/1000 strokes : 3.0	- - control lever - position degree : 46.0
Check tolerance	- tolerance degree : +- 4.0
cm3/1000s. : 7.0	- RATED SPEED
Rated speed rpm : 350	- rack travel mm : 8.20 - Rated speed rpm : 1195 - Tolerance 1/min : +- 5
Rack travel in mm : 6.00 Tolerance mm : + 0.10 Del. quantity cm3/1000 strokes : 12.5 cm3/1000 strokes : + 2.0 Check tolerance cm3/1000s. : + 4.0 Spreed cm3/1000 strokes : 4.5 Check tolerance cm3/1000s. : 7.0	rack travel mm : 4.00 Rated speed rpm : 1245 Tolerance 1/min : +- 15 rack travel mm : 0.85 Tolerance mm : +- 0.55 Rated speed rpm : 1400
	- LOW IDLE
(B) SETTING OF INJECTION PUMP WITH GOVERNOR	control lever position degree : 20.0 tolerance degree : +- 4.0
GUIDE SLEEVE POSITION	Setting point w/out bumper spring
Rated speed rpm : 800	- Rated speed rpm : 350 - rack travel mm : 5.50
Rack travel in mm: 0.65 Tolerance mm: + 0.35	Testing:
governor spring pre-tension click setting x : 4.25	Rated speed rpm : 350 rack travel mm : 6.00 Tolerance mm : + 0.10
FULL LOAD DELIVERY AT FULL LOAD STOP	rack travel mm : 2.00 Rated speed rpm : 600 Tolerance 1/min : +- 30
Rated speed rpm : 1150 Aneroid pressure hPa : -	Rated speed rpm : 100
Del. quantity cm3/1000 strokes : 62.5 cm3/1000 strokes : + 0.5	CRT mm min. : > 19.00
Check tolerance cm3/1000s. : + 2.5	TORQUE CONTROL
Spreed cm3/1000 strokes : 3.0 Check tolerance cm3/1000s. : 7.0	Rated speed rpm : 1150 rack travel mm : 9.25 Tolerance mm : +- 0.05 Rated speed rpm : 500
CONTROL LEVED	rack travel mm : 9.85 Tolerance mm : + 0.05
CONTROL LEVER	Rated speed rpm : 800 rack travel mm : 9.55

Tolerance mm	: +- 0.15
FUEL DELIVERY CHA	ARACTERISTICS
Aneroid pressure hPa Rated speed rpm Del. quantity cm3/1000 strokes cm3/1000 strokes Check tolerance	: - : 500 : 54.5 : ← 1.5
cm3/1000s. Spreed cm3/1000 strokes Check tolerance cm3/1000s.	: +- 3.5 : 4.0 : 8.0
Aneroid pressure hPa Rated speed rpm Del. quantity cm3/1000 strokes cm3/1000 strokes Check tolerance cm3/1000s. Spreed cm3/1000 strokes Check tolerance cm3/1000s.	: - : 800 : 60.5 : + 1.5 : + 3.5 : 4.0 : 8.0
Rack travel in man Rated speed rpm Tolerance 1/min	: 1195
STARTING FUEL DEL	IVERY
Rated speed rpm rack travel mm Tolerance mm	: 100 : 20.00 : + 1.00
LOW IDLE	
Rated speed rpm Del. quantity cm3/1000 strokes cm3/1000 strokes	: 350 : 12.5 : + 2.0

Check tolerance cm3/1000s. : +- 4.0 Spreed cm3/1000 strokes : 4.5 Check tolerance cm3/1000s. : 7.0

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

Edition : 11.11.96 Test oil : ISO 4113

Combination No. : 9 400 085 301

Injection pump

Pump designation : PES6A85D410RS2415 EP type number : 0 410 886 907

Governor

Governer design. : RQV350...1325AB1234

: -1L

Governer no. : 9 420 080 259

Cust. part No. :

Customer-spec. information

Customer : DEUTZ-ARGENTINA

Motor : BF 6L 913 Power KW : 116.0

TEST BENCH REQUIREMENTS

Inlet line : 4.2

Test oil inlet

temp. °C : 40
Tolerance °C : + 2.0

Overflow valve : 1 417 413 047

Inlet press. bar : 1.5

Test nozzle holde

assembly : 0 681 343 009

Opening pressure

bar : 173.5 Tolerance bar : + 1.5

Test Lines : 1 680 750 014

Outside diameter : 6.0

x inside diameter: 2.0 x length mm : 600

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values _____

BEGINNING OF DELIVERY

Test pressure bar : 32.0 Tolerance bar : + 1.0

Prestroke mm : 1.95 Tolerance mm : + 0.05

Check

tolerance mm : \leftarrow 0.10

Rack travel in mm : 10.50 Tolerance mm : + 1.50

Firing order : 1-5-3-6-2-

: 4

Phasing : 0-60-120-180-240

: -300

BASIC SETTING

Rated speed rpm : 1325

Rack travel in mm : 11.15
Tolerance mm : + 0.05

Del. quantity

cm3/1000 strokes : 77.5

cm3/1000 strokes : +- 0.5

Check tolerance

cm3/1000S.

: + 2.5

Spreed

cm3/1000 strokes : 3.0

Check tolerance

cm3/1000s. : 7.0

Rated speed rpm : 350 +	Aneroid pressure
+	hPa : -
+	Del. quantity
Rack travel in mm: 8.00	cm3/1000 strokes : 77.5
Tolerance mm : +- 0.10 +	cm3/1000 strokes : $+-$ 0.5
Del. quantity	Check tolerance
cm3/1000 strokes : 16.0	cm3/1000s. : +- 2.5
cm3/1000 strokes : +- 2.0 +	Spreed
Check tolerance	cm3/1000 strokes : 3.0
cm3/1000s. : +- 4.0 $+$	Check tolerance
Spreed	cm3/1000s. : 7.0
cm3/1000 strokes : 4.5	
Check tolerance + cm3/1000S. : 7.0 +	
T	CONTROL LEVER
I	CONTROL LEVER
(B) SETTING OF INJECTION PUMP	control lever
WITH GOVERNOR	position degree : 61.0
42711 2012111011	tolerance degree : +- 4.0
1	
GUIDE SLEEVE TRAVEL	control lever
+	position degree : 116.0
Rated speed rpm : 1400	tolerance degree : +- 4.0
guide sleeve +	-
travel mm : 8.90 +	RATED SPEED
Tolerance mm : + 0.10 +	
+	rack travel mm : 10.10
Rated speed rpm : 900 +	Rated speed rpm : 1370
guide sleeve	Tolerance 1/min : +- 5
travel mm : 4.95	
Tolerance mm : + 0.25	rack travel mm : 4.00
<u></u> †	Rated speed rpm : 1470
Rated speed rpm : 300 +	Tolerance 1/min : +- 15
guide sleeve	0.50
travel mm : 0.75	rack travel mm : 0.50
Tolerance mm : + 0.25	Tolerance mm : + 0.50
Pated aread man . 400	Rated speed rpm : 1600
Rated speed rpm : 600 + guide sleeve +	
travel mm : 2.85	
Tolerance mm : + 0.25	LOW IDLE
Total differ that	EOM IDEE
Rated speed rpm : 1200	
guide sleeve	control lever
travel mm : 6.95	position degree : 70.0
Tolerance mm : + 0.25	tolerance degree : +- 4.0
+	
	control lever
GUIDE SLEEVE POSITION +	position degree : 15.0
+	tolerance degree : + 4.0
Rated speed rpm : 1350 +	
+	Testing:
Rack travel in mm: 16.50 +	
Tolerance mm : + 1.30 +	Rated speed rpm : 350
†	rack travel mm : 8.00
FILL LASS SELTUES AT FILL LOSS STOP	Tolerance mm : +- 0.10
FULL LOAD DELIVERY AT FULL LOAD STOP	Detail aread app 400
Redad around over a 1705	Rated speed rpm : 100
Rated speed rpm : 1325	CDT mm min O OO
+	CRT mm min. : > 9.00

Rated speed rpm	: 450	theck tolerance cm3/1000s. : 8.0
TORQUE CONTROL		Aneroid pressure hPa : -
Rated speed rpm	: 1325	Rated speed rpm : 1100 Del. quantity
rack travel mm	: 11.15	- cm3/1000 strokes : 77.5
Tolerance mm	: +- 0.05	+ cm3/1000 strokes : +- 1.5
Rated speed rpm rack travel mm Tolerance mm	: 500	Check tolerance cm3/1000s. : +- 3.5
rack travel mm	: 12.35	+ Spreed
Tolerance mm	: +- 0.05	+ cm3/1000 strokes : 4.0 + Check tolerance
Rated speed rpm rack travel mm Tolerance mm	: 800	+ cm3/1000s. : 8.0
rack travel mm	: 12.25	+
Tolerance mm	: ← 0.15	
		+ BREAKAWAY
Rated speed rpm rack travel mm Tolerance mm	: 1100	†
rack travel mm	: 11.60	† 2
iolerance mm	: +- 0.70	Rack travel in mm: 10.10
		+ Rated speed rpm : 1370 + Tolerance 1/min : + 5
		+ Toterance Militi . +- 3
START CUT-OUT		<u> </u>
Rated speed rpm	: > 100	STARTING FUEL DELIVERY
Rated speed rpm	: < 300	+
		Rated speed rpm : 100
Check	. 00	rack travel mm : 20.00
speed 1/min	: > 80	Tolerance mm : + 1.00
Check speed 1/min	: < 320	Ī
		<u> </u>
FUEL DELIVERY CHA	ARACTERISTICS	LOW IDLE
Aneroid pressure		Rated speed rpm : 350
hPa	: -	+ Del. quantity
Rated speed rpm	: 500	+ cm3/1000 strokes : 16.0
Del. quantity	: 75.0	+ cm3/1000 strokes : +- 2.0 + Check tolerance
cm3/1000 strokes cm3/1000 strokes		- cm3/1000s. : +- 4.0
Check tolerance	• • • • • • • • • • • • • • • • • • • •	Spreed
cm3/1000s.	: +- 3.5	+ cm3/1000 strokes : 4.5
Spreed		+ Check tolerance
cm3/1000 strokes	: 4.0	+ cm3/1000s. : 7.0
Check tolerance		†
cm3/1000s.	: 8.0	<u> </u>
Aneroid pressure		+
hPa	: -	+
Rated speed rpm	: 800	Total of Acad annuiting about
Del. quantity	. 70.0	End of test specification sheet
cm3/1000 strokes		Ţ
cm3/1000 strokes Check tolerance	, (.5	I
cm3/1000s.	: +- 3.5	+
Spreed cm3/1000 strokes	: 4.0	Į

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

Edition : 11.11.96 : ISO 4113 Test oil

Combination No. : 9 400 085 311

Injection pump

Pump designation : PES6A90D320RS2718 EP type number : 9 400 084 003

Governor

Governer design. : RSV350...1250A0C1108

: -2R Governer no. : 9 420 083 272

Cust. part No. :

Customer-spec. information

Customer : MWM

: TD 229 EC-06 : 121.5 Motor

Power KW

TEST BENCH REQUIREMENTS

Inlet line : 3.1

Test oil inlet

temp. °C : 40
Tolerance °C : +- 2.0

Overflow valve : 1 419 992 198

Inlet press. bar : 1.5

Test nozzle holde

: 0 681 343 009 assembly

Opening pressure

: 173.5 bar Tolerance bar : + 1.5

Test Lines : 1 680 750 014

Outside diameter : 6.0

x inside diameter: 2.0 x length mm : 600

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values ____

BEGINNING OF DELIVERY

Test pressure bar : 26.0 Tolerance bar : + 1.0

Prestroke mm : 2.75
Tolerance mm : + 0.05

Check

: +- 0.10 tolerance mm

Rack travel in mm : 10.50 Tolerance mm : + 1.50

Firing order : 1-5-3-6-2-

Phasing : 0-60-120-180-240

Beginning of delivery differende

and maximum rack

travel : 10.50
Tolerance mm : + 1.50
Difference CS : 3.50

BASIC SETTING

Rated speed rpm : 1200

Rack travel in mm: 10.85 Tolerance mm : \leftarrow 0.05

Del. quantity

cm3/1000 strokes : 89.0

cm3/1000 strokes : +- 0.5

Check tolerance

cm3/1000s. : +- 2.5

	1	
Spreed cm3/1000 strokes	: 3.0	control lever position degree : 109.0 tolerance degree : +- 4.0
Check tolerance cm3/1000s.	: 7.0	RATED SPEED
Rated speed rpm	: 350	rack travel mm : 9.80 Rated speed rpm : 1295 Tolerance 1/min : +- 5
Rack travel in mm : Tolerance mm Del. quantity	: 5.20 : ← 0.10	rack travel mm : 4.00 Rated speed rpm : 1375
cm3/1000 strokes cm3/1000 strokes		Tolerance 1/min : +- 15
Check tolerance cm3/1000S. Spreed	: ← 4.0	rack travel mm : 0.85 Tolerance mm : +- 0.55 Rated speed rpm : 1450
cm3/1000 strokes :	: 4.5	Nated Speed (pilk : 1450
	: 7.0 	LOW IDLE
(B) SETTING OF INJE WITH GOVERNOR	ECTION PUMP	control lever position degree : 79.0 tolerance degree : +- 4.0
GUIDE SLEEVE POSITI	ION	Setting point w/out bumper spring
Rated speed rpm	: 800	Rated speed rpm : 350 rack travel mm : 4.70
Rack travel in mm : Tolerance mm :	: 0.65 : ← 0.35	Testing:
governor spring pre-tension click setting x	: 4.50	Rated speed rpm : 350 rack travel mm : 5.20 Tolerance mm : +- 0.10
FULL LOAD DELIVERY	+	rack travel mm : 2.00 Rated speed rpm : 425 Tolerance 1/min : +- 30
Rated speed rpm : Aneroid pressure hPa :	+	Rated speed rpm : 100
Del. quantity cm3/1000 strokes :	89.0	CRT mm min. : > 19.00
Check tolerance	± ← 0.5 ± + 2.5	TORQUE CONTROL
Spreed cm3/1000 strokes : Check tolerance	3.0	Rated speed rpm : 1200 rack travel mm : 10.85 Tolerance mm : +- 0.05
cm3/1000s. :	7.0	Rated speed rpm : 500 rack travel mm : 10.90
CONTROL LEVER	Ţ	Rated speed rpm : 400
	+	rack travel mm : 12.30

FUEL DELIVERY CHARACTERISTICS

Aneroid pressure

Rated speed rpm : 500

Del. quantity

cm3/1000 strokes : 80.5 cm3/1000 strokes : +- 1.5

Check tolerance

cm3/1000s. 3.5

Spreed

cm3/1000 strokes : 4.0

Check tolerance

cm3/1000s. 8.0

BREAKAWAY

9.80 Rack travel in mm : Rated speed rpm : 1295 Tolerance 1/min : +-

STARTING FUEL DELIVERY

100 Rated speed rpm : rack travel mm : 20.00 : ← 1.00 Tolerance mm

LOW IDLE

Rated speed rpm : 350

Del. quantity

cm3/1000 strokes : 11.0 cm3/1000 strokes : + 2.0

Check tolerance

cm3/1000s. : +- 4.0

Spreed

cm3/1000 strokes : 4.5

Check tolerance cm3/1000s. 7.0

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

: 11,11,96 Edition Test oil : ISO 4113

Combination No. : 9 400 085 350

Injection pump

Pump designation : PES6A95D41ORS2772 EP type number : 9 400 084 018

Governor

Governer design. : RQV300...1300AB1066

: -12L

Governer no. : 9 420 080 331

Cust. part No. :

Customer-spec. information

Customer : MBB

: OM 366 LA Motor Power KW : 154.5

TEST BENCH REQUIREMENTS

Inlet line : 4.1

Test oil inlet

temp. °C 40 Tolerance °C

Overflow valve : 1 419 992 198

Inlet press. bar : 1.5

Test nozzle holde

assembly : 0 681 343 009

Opening pressure

Tolerance bar

Test lines : 1 680 750 015

Outside diameter : 6.0

x inside diameter: 3.0 x length mm : 600

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values ____

BEGINNING OF DELIVERY

Test pressure bar : 26.0 Tolerance bar : +- 1.0

3.25 Prestroke mm : +- 0.05 Tolerance mm Check : + 0.10tolerance mm

Rack travel in mm: 10.50 : +- 1.50 Tolerance mm

Firing order : 1-5-3-6-2-

: 0-60-120-180-240 Phasing

: -300

BASIC SETTING

Rated speed rpm : 1300

Rack travel in mm: 11.15 Tolerance mm : \leftarrow 0.05

Del. quantity cm3/1000 strokes : 99.0

cm3/1000 strokes : +- 1.0

Check tolerance : +- 3.0 cm3/1000s.

Spreed 3.5 cm3/1000 strokes :

Check tolerance cm3/1000s. : 8.0

Rated speed rpm : 300 +	Check tolerance
1	cm3/1000s. : +- 3.0
<u>1</u>	Spreed
Rack travel in mm: 7.00	cm3/1000 strokes : 3.5
	Check tolerance
Del. quantity	cm3/1000s. : 8.0
cm3/1000 strokes : 11.0 +	
cm3/1000 strokes : + 2.0 +	
Check tolerance +	
cm3/1000s. : $+$ 4.5	CONTROL LEVER
Spreed +	
cm3/1000 strokes : 5.5 +	control lever
Check tolerance +	position degree : 60.0
cm3/1000s. : 9.0 +	tolerance degree : + 4.0
1	
1	control lever
(B) SETTING OF INJECTION PUMP	position degree : 110.0
WITH GOVERNOR	tolerance degree : + 4.0
WITH GOVERNOR	totel ante degree 4.0
T.	DATEN CDECN
CHAPE CLEENE TOWNS	RATED SPEED
GUIDE SLEEVE TRAVEL	40.40
<u> </u>	rack travel mm : 10.10
Rated speed rpm : 300 +	Rated speed rpm : 1365
guide sleeve +	Tolerance 1/min : + 5
travel mm : 1.05 +	
Tolerance mm : + 0.25 +	rack travel mm : 4.00
+	Rated speed rpm : 1505
Rated speed rpm : 1500 +	Tolerance 1/min : + 15
guide sleeve	
travel mm : 8.55	rack travel mm : 0.50
C1 QVCC 11811 . 0.55	
Tolerance mm $\cdot \leftarrow 0.05$	Tolerance mm $\cdot \leftarrow 0.50$
Tolerance mm : + 0.05	Tolerance mm : + 0.50
+	Tolerance mm : +- 0.50 Rated speed rpm : 1650
Rated speed rpm : 500	
Rated speed rpm : 500 + guide sleeve +	
Rated speed rpm : 500 + guide sleeve + travel mm : 2.55 +	Rated speed rpm : 1650
Rated speed rpm : 500 + guide sleeve +	
Rated speed rpm : 500 guide sleeve travel mm : 2.55 Tolerance mm : + 0.25	Rated speed rpm : 1650
Rated speed rpm : 500 guide sleeve travel mm : 2.55 Tolerance mm : + 0.25 Rated speed rpm : 750	Rated speed rpm : 1650 LOW IDLE
Rated speed rpm : 500 guide sleeve travel mm : 2.55 Tolerance mm : + 0.25 Rated speed rpm : 750 guide sleeve	Rated speed rpm : 1650 LOW IDLE control lever
Rated speed rpm : 500 guide sleeve travel mm : 2.55 Tolerance mm : + 0.25 Rated speed rpm : 750	Rated speed rpm : 1650 LOW IDLE
Rated speed rpm : 500 guide sleeve travel mm : 2.55 Tolerance mm : + 0.25 Rated speed rpm : 750 guide sleeve	Rated speed rpm : 1650 LOW IDLE control lever
Rated speed rpm : 500 guide sleeve travel mm : 2.55 Tolerance mm : + 0.25 Rated speed rpm : 750 guide sleeve travel mm : 4.20	Rated speed rpm : 1650 LOW IDLE control lever position degree : 68.0
Rated speed rpm : 500 guide sleeve travel mm : 2.55 Tolerance mm : + 0.25 Rated speed rpm : 750 guide sleeve travel mm : 4.20	Rated speed rpm : 1650 LOW IDLE control lever position degree : 68.0
Rated speed rpm : 500 guide sleeve travel mm : 2.55 Tolerance mm : + 0.25 Rated speed rpm : 750 guide sleeve travel mm : 4.20 Tolerance mm : + 0.10	Rated speed rpm : 1650 LOW IDLE control lever position degree : 68.0 tolerance degree : 4.0 control lever
Rated speed rpm : 500 guide sleeve travel mm : 2.55 Tolerance mm : + 0.25 Rated speed rpm : 750 guide sleeve travel mm : 4.20	Rated speed rpm : 1650 LOW IDLE control lever position degree : 68.0 tolerance degree : + 4.0 control lever position degree : 18.0
Rated speed rpm : 500 guide sleeve travel mm : 2.55 Tolerance mm : + 0.25 Rated speed rpm : 750 guide sleeve travel mm : 4.20 Tolerance mm : + 0.10 GUIDE SLEEVE POSITION	Rated speed rpm : 1650 LOW IDLE control lever position degree : 68.0 tolerance degree : 4.0 control lever
Rated speed rpm : 500 guide sleeve travel mm : 2.55 Tolerance mm : + 0.25 Rated speed rpm : 750 guide sleeve travel mm : 4.20 Tolerance mm : + 0.10	Rated speed rpm : 1650 LOW IDLE control lever position degree : 68.0 tolerance degree : + 4.0 control lever position degree : 18.0 tolerance degree : + 4.0
Rated speed rpm : 500 guide sleeve travel mm : 2.55 Tolerance mm : + 0.25 Rated speed rpm : 750 guide sleeve travel mm : 4.20 Tolerance mm : + 0.10 GUIDE SLEEVE POSITION Rated speed rpm : 1500	Rated speed rpm : 1650 LOW IDLE control lever position degree : 68.0 tolerance degree : + 4.0 control lever position degree : 18.0
Rated speed rpm : 500 guide sleeve travel mm : 2.55 Tolerance mm : + 0.25 Rated speed rpm : 750 guide sleeve travel mm : 4.20 Tolerance mm : + 0.10 GUIDE SLEEVE POSITION Rated speed rpm : 1500 Rack travel in mm : 16.50	Rated speed rpm : 1650 LOW IDLE control lever position degree : 68.0 tolerance degree : + 4.0 control lever position degree : 18.0 tolerance degree : + 4.0 Testing:
Rated speed rpm : 500 guide sleeve travel mm : 2.55 Tolerance mm : + 0.25 Rated speed rpm : 750 guide sleeve travel mm : 4.20 Tolerance mm : + 0.10 GUIDE SLEEVE POSITION Rated speed rpm : 1500	Rated speed rpm : 1650 LOW IDLE control lever position degree : 68.0 tolerance degree : + 4.0 control lever position degree : 18.0 tolerance degree : + 4.0 Testing: Rated speed rpm : 300
Rated speed rpm : 500 guide sleeve travel mm : 2.55 Tolerance mm : + 0.25 Rated speed rpm : 750 guide sleeve travel mm : 4.20 Tolerance mm : + 0.10 GUIDE SLEEVE POSITION Rated speed rpm : 1500 Rack travel in mm : 16.50	Rated speed rpm : 1650 LOW IDLE control lever position degree : 68.0 tolerance degree : + 4.0 control lever position degree : 18.0 tolerance degree : + 4.0 Testing: Rated speed rpm : 300 rack travel mm : 7.00
Rated speed rpm : 500 guide sleeve travel mm : 2.55 Tolerance mm : + 0.25 Rated speed rpm : 750 guide sleeve travel mm : 4.20 Tolerance mm : + 0.10 GUIDE SLEEVE POSITION Rated speed rpm : 1500 Rack travel in mm : 16.50 Tolerance mm : + 1.30	Rated speed rpm : 1650 LOW IDLE control lever position degree : 68.0 tolerance degree : + 4.0 control lever position degree : 18.0 tolerance degree : + 4.0 Testing: Rated speed rpm : 300
Rated speed rpm : 500 guide sleeve travel mm : 2.55 Tolerance mm : + 0.25 Rated speed rpm : 750 guide sleeve travel mm : 4.20 Tolerance mm : + 0.10 GUIDE SLEEVE POSITION Rated speed rpm : 1500 Rack travel in mm : 16.50	Rated speed rpm : 1650 LOW IDLE control lever position degree : 68.0 tolerance degree : + 4.0 control lever position degree : 18.0 tolerance degree : + 4.0 Testing: Rated speed rpm : 300 rack travel mm : 7.00 Tolerance mm : + 0.10
Rated speed rpm : 500 guide sleeve travel mm : 2.55 Tolerance mm : + 0.25 Rated speed rpm : 750 guide sleeve travel mm : 4.20 Tolerance mm : + 0.10 GUIDE SLEEVE POSITION Rated speed rpm : 1500 Rack travel in mm : 16.50 Tolerance mm : + 1.30 FULL LOAD DELIVERY AT FULL LOAD STOP	Rated speed rpm : 1650 LOW IDLE control lever position degree : 68.0 tolerance degree : + 4.0 control lever position degree : 18.0 tolerance degree : + 4.0 Testing: Rated speed rpm : 300 rack travel mm : 7.00
Rated speed rpm : 500 guide sleeve travel mm : 2.55 Tolerance mm : + 0.25 Rated speed rpm : 750 guide sleeve travel mm : 4.20 Tolerance mm : + 0.10 GUIDE SLEEVE POSITION Rated speed rpm : 1500 Rack travel in mm : 16.50 Tolerance mm : + 1.30 FULL LOAD DELIVERY AT FULL LOAD STOP Rated speed rpm : 1300	Rated speed rpm : 1650 LOW IDLE control lever position degree : 68.0 tolerance degree : + 4.0 control lever position degree : 18.0 tolerance degree : + 4.0 Testing: Rated speed rpm : 300 rack travel mm : 7.00 Tolerance mm : + 0.10 Rated speed rpm : 100
Rated speed rpm : 500 guide sleeve travel mm : 2.55 Tolerance mm : + 0.25 Rated speed rpm : 750 guide sleeve travel mm : 4.20 Tolerance mm : + 0.10 GUIDE SLEEVE POSITION Rated speed rpm : 1500 Rack travel in mm : 16.50 Tolerance mm : + 1.30 FULL LOAD DELIVERY AT FULL LOAD STOP Rated speed rpm : 1300 Aneroid pressure	Rated speed rpm : 1650 LOW IDLE control lever position degree : 68.0 tolerance degree : + 4.0 control lever position degree : 18.0 tolerance degree : + 4.0 Testing: Rated speed rpm : 300 rack travel mm : 7.00 Tolerance mm : + 0.10
Rated speed rpm : 500 guide sleeve travel mm : 2.55 Tolerance mm : + 0.25 Rated speed rpm : 750 guide sleeve travel mm : 4.20 Tolerance mm : + 0.10 GUIDE SLEEVE POSITION Rated speed rpm : 1500 Rack travel in mm : 16.50 Tolerance mm : + 1.30 FULL LOAD DELIVERY AT FULL LOAD STOP Rated speed rpm : 1300	Rated speed rpm : 1650 LOW IDLE control lever position degree : 68.0 tolerance degree : + 4.0 control lever position degree : 18.0 tolerance degree : + 4.0 Testing: Rated speed rpm : 300 rack travel mm : 7.00 Tolerance mm : + 0.10 Rated speed rpm : 100 CRT mm min. : > 8.00
Rated speed rpm : 500 guide sleeve travel mm : 2.55 Tolerance mm : + 0.25 Rated speed rpm : 750 guide sleeve travel mm : 4.20 Tolerance mm : + 0.10 GUIDE SLEEVE POSITION Rated speed rpm : 1500 Rack travel in mm : 16.50 Tolerance mm : + 1.30 FULL LOAD DELIVERY AT FULL LOAD STOP Rated speed rpm : 1300 Aneroid pressure hPa : 700	Rated speed rpm : 1650 LOW IDLE control lever position degree : 68.0 tolerance degree : + 4.0 control lever position degree : 18.0 tolerance degree : + 4.0 Testing: Rated speed rpm : 300 rack travel mm : 7.00 Tolerance mm : + 0.10 Rated speed rpm : 100
Rated speed rpm : 500 guide sleeve travel mm : 2.55 Tolerance mm : + 0.25 Rated speed rpm : 750 guide sleeve travel mm : 4.20 Tolerance mm : + 0.10 GUIDE SLEEVE POSITION Rated speed rpm : 1500 Rack travel in mm : 16.50 Tolerance mm : + 1.30 FULL LOAD DELIVERY AT FULL LOAD STOP Rated speed rpm : 1300 Aneroid pressure hPa : 700 Del. quantity	Rated speed rpm : 1650 LOW IDLE control lever position degree : 68.0 tolerance degree : + 4.0 control lever position degree : 18.0 tolerance degree : + 4.0 Testing: Rated speed rpm : 300 rack travel mm : 7.00 Tolerance mm : + 0.10 Rated speed rpm : 100 CRT mm min. : > 8.00
Rated speed rpm : 500 guide sleeve travel mm : 2.55 Tolerance mm : + 0.25 Rated speed rpm : 750 guide sleeve travel mm : 4.20 Tolerance mm : + 0.10 GUIDE SLEEVE POSITION Rated speed rpm : 1500 Rack travel in mm : 16.50 Tolerance mm : + 1.30 FULL LOAD DELIVERY AT FULL LOAD STOP Rated speed rpm : 1300 Aneroid pressure hPa : 700 Del. quantity cm3/1000 strokes : 99.0	Rated speed rpm : 1650 LOW IDLE control lever position degree : 68.0 tolerance degree : + 4.0 control lever position degree : 18.0 tolerance degree : + 4.0 Testing: Rated speed rpm : 300 rack travel mm : 7.00 Tolerance mm : + 0.10 Rated speed rpm : 100 CRT mm min. : > 8.00
Rated speed rpm : 500 guide sleeve travel mm : 2.55 Tolerance mm : + 0.25 Rated speed rpm : 750 guide sleeve travel mm : 4.20 Tolerance mm : + 0.10 GUIDE SLEEVE POSITION Rated speed rpm : 1500 Rack travel in mm : 16.50 Tolerance mm : + 1.30 FULL LOAD DELIVERY AT FULL LOAD STOP Rated speed rpm : 1300 Aneroid pressure hPa : 700 Del. quantity	Rated speed rpm : 1650 LOW IDLE control lever position degree : 68.0 tolerance degree : + 4.0 control lever position degree : 18.0 tolerance degree : + 4.0 Testing: Rated speed rpm : 300 rack travel mm : 7.00 Tolerance mm : + 0.10 Rated speed rpm : 100 CRT mm min. : > 8.00

Rated speed rpm rack travel mm Tolerance mm Rated speed rpm rack travel mm Tolerance mm ANEROID/ALTITUDE COMPENSATOR TEST	: 11.15 : + 0.05 : 700 : 11.15 : + 0.05	Check tolerance cm3/1000s. : 8.0 Aneroid pressure hPa : - Rated speed rpm : 500 Del. quantity cm3/1000 strokes : 45.0 cm3/1000 strokes : +- 1.0 Check tolerance cm3/1000s. : +- 3.0 Spreed cm3/1000 strokes : 3.5 Check tolerance cm3/1000s. : 8.0
Rated speed rpm Fressure hPa rack travel mm Tolerance mm MEASUREMENT	: 700 : 11.15	BREAKAWAY Rack travel in mm: 10.10 Rated speed rpm: 1365 Tolerance 1/min: +- 5
Pressure hPa Rated speed rpm	: - : 500	<u> </u>
Rated speed rpm	: 500	STARTING FUEL DELIVERY
Pressure hPa Fack travel mm Tolerance mm Pressure hPa Fack travel mm Tolerance mm	: 270 : 0.55 : ← 0.15 : 400 : 1.75 : ← 0.05	Rated speed rpm : 100 rack travel mm : 13.70 Tolerance mm : + 0.10 Del. quantity cm3/1000 strokes : 84.0 cm3/1000 strokes : + 7.5
START CUT-OUT		- +
Rated speed rpm Rated speed rpm	: > 100 : < 220	Rated speed rpm : 300 Del. quantity
Check speed 1/min Check speed 1/min	: > 80 : < 240	- cm3/1000 strokes : 11.0 - cm3/1000 strokes : + 2.0 - Check tolerance - cm3/1000s. : + 4.5 - Spreed - cm3/1000 strokes : 5.5
FUEL DELIVERY CHA	ARACTERISTICS	Check tolerance cm3/1000s. : 9.0
Aneroid pressure hPa Rated speed rpm Del. quantity cm3/1000 strokes cm3/1000 strokes		† †
Check tolerance cm3/1000s. Spreed cm3/1000 strokes	: ← 4.0	End of test specification sheet

Note remarks

Refer to Service Info for test and adjustment instructions.
See microcard(s) W400/...

Edition : 11.11.96 Test oil : ISO 4113

Combination No. : 9 400 085 353

Injection pump

Pump designation : PES6A95D410RS277? EP type number : 9 400 084 018

Governor

Governer design. : RQV300...1300AB1066

: -8L

Governer no. : 9 420 080 279

Cust. part No. :

Customer—spec. information Customer : MBB_

Motor : 0M 366 LA Power KW : 155.0

TEST BENCH REQUIREMENTS

Inlet line : 4.1

Test oil inlet

temp. °C : 40 Tolerance °C : +- 2.0

Overflow valve : 1 419 992 198

Inlet press. bar : 1.5

Test nozzle holde

assembly : 0 681 343 009

Opening pressure

bar : 173.5
Tolerance bar : + 1.5

Test Lines : 1 680 750 015

Outside diameter : 6.0

x inside diameter : 3.0
x length mm : 600

REMARKS

(A) INJECTION PUMP SETTING VALUES Set equal delivery quant.

per values _____

BEGINNING OF DELIVERY

Test pressure bar : 26.0 Tolerance bar : +- 1.0

Prestroke mm : 3.25
Tolerance mm : + 0.05
Check
tolerance mm : + 0.10

Rack travel in mm : 10.50

Tolerance mm : +- 1.50

Firing order : 1-5-3-6-2-

: 4

Phasing : 0-60-120-180-240

: -300

BASIC SETTING

Rated speed rpm : 1300

Rack travel in mm : 11.15 Tolerance mm : + 0.05

Del. quantity cm3/1000 strokes : 99.0

cm3/1000 strokes : +- 1.0

Check tolerance cm3/1000s. : +- 3.0

Spreed

cm3/1000 strokes : 3.5

Check tolerance cm3/1000s. : 8.0

Rated speed rpm : 300 +	Check tolerance
rated speed (pill : 500 T	cm3/1000s. : + 3.0
+	Spreed
Rack travel in mm: 7.00	cm3/1000 strokes : 3.5
Tolerance mm : + 0.10	Check tolerance cm3/1000s. : 8.0
Del. quantity + cm3/1000 strokes : 11.0 +	Cm5/1000s. : 0.0
cm3/1000 strokes : + 2.0	
Check tolerance +	
cm3/1000s. : + 4.5	CONTROL LEVER
Spreed + cm3/1000 strokes : 5.5 +	control lever
Check tolerance	position degree : 60.0
cm3/1000s. : 9.0 +	tolerance degree : +- 4.0
†	combined design
(B) SETTING OF INJECTION PUMP	control lever position degree : 108.0
WITH GOVERNOR	tolerance degree : +- 4.0
+	-
	RATED SPEED
GUIDE SLEEVE TRAVEL	rack travel mm : 10.10
Rated speed rpm : 300	Rated speed rpm : 1365
guide sleeve +	Tolerance 1/min : +- 5
travel mm : 1.05	most Americal arm
Tolerance mm : \leftarrow 0.25	rack travel mm : 4.00 Rated speed rpm : 1500
Rated speed rpm : 1500	Tolerance 1/min : +- 15
guide sleeve	
travel mm : 8.55	rack travel mm : 0.50
Tolerance mm : + 0.05	Tolerance mm : + 0.50 Rated speed rpm : 1650
Rated speed rpm : 500	Rated Speed (pm : 1000
guide sleeve	
travel mm : 2.55	101 701
Tolerance mm : + 0.25	LOW IDLE
Rated speed rpm : 750	
guide sleeve	control lever
travel mm : 4.20	position degree : 68.0
Tolerance mm : + 0.10	tolerance degree : +- 4.0
	control lever
GUIDE SLEEVE POSITION +	position degree : 19.0
1500	tolerance degree : +- 4.0
Rated speed rpm : 1500	Testing:
Rack travel in mm: 16.50	resemg.
Tolerance mm : + 1.30	Rated speed rpm : 300
†	rack travel mm : 7.00 Tolerance mm : + 0.10
FULL LOAD DELIVERY AT FULL LOAD STOP	loterance mm : +- U.IU
TOLL LOAD DELIVERY AT FOLE LOAD STOP	Rated speed rpm : 100
Rated speed rpm : 1300	
Aneroid pressure +	CRT mm min. $:>8.00$
hPa : 700	
Del. quantity + cm3/1000 strokes : 99.0 +	TORQUE CONTROL
cm3/1000 strokes : + 1.0 +	
+	Rated speed rpm : 1300

rack travel mm Tolerance mm	: +- 0.05	+ Aneroid pressure + hPa : -
Rated speed rpm rack travel mm Tolerance mma	: 11.15	Rated speed rpm : 500 Del. quantity cm3/1000 strokes : 60.5 cm3/1000 strokes : +- 1.0 Check tolerance
ANEROID/ALTITUDE COMPENSATOR TEST		+ cm3/1000s. : + 3.0 + Spreed + cm3/1000 strokes : 3.5 + Check tolerance
SETTING		cm3/1000s. : 8.0
Rated speed rpm Pressure hPa rack travel mm Tolerance mm	: 500 : 700 : 11.15 : +- 0.05	BREAKAWAY Rack travel in mm: 10.10
MEASUREMENT Pressure hPa Rated speed rpm	: – : 500	Rated speed rpm : 1365 Tolerance 1/min : +- 5
Rated speed rpm	: 500	STARTING FUEL DELIVERY
Pressure hPa rack travel mm Tolerance mm	: 300 : 0.40 : + 0.10	Rated speed rpm : 100 rack travel mm : 13.70 Tolerance mm : + 0.10 Del. quantity
Pressure hPa rack travel mm Tolerance mm	: 1.05	cm3/1000 strokes : 84.0 cm3/1000 strokes : + 7.5 Check tolerance cm3/1000s. : + 10.0
START CUT-OUT		‡
Rated speed rpm Rated speed rpm		LOW IDLE
Check speed 1/min Check speed 1/min	: > 80 : < 240	Rated speed rpm : 300 Del. quantity cm3/1000 strokes : 11.0 cm3/1000 strokes : + 2.0 Check tolerance
FUEL DELIVERY CHA	ARACTERISTICS	
Aneroid pressure hPa Rated speed rpm Del. quantity cm3/1000 strokes cm3/1000 strokes		Check tolerance cm3/1000s. : 9.0
Check tolerance cm3/1000s. Spreed cm3/1000 strokes Check tolerance cm3/1000s.		End of test specification sheet
CHO/ 10003.	: 8.0	7

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

: 11.11.96 **Edition** : ISO 4113 Test oil

Combination No. : 9 400 085 372

Injection pump

Pump designation : PES6A95D410RS2772 EP type number : 9 400 084 018

Governor

Governer design. : RQV300...1300AB1283L

Governer no. : 9 420 080 367

Cust. part No. :

Customer-spec. information

Customer : MBB : OM 366 LA Motor

Power KW : 155.0

TEST BENCH REQUIREMENTS

Inlet line : 4.1

Test oil inlet

40 temp. °C Tolerance °C

Overflow valve : 1 419 992 198

Inlet press. bar : 1.5

Test nozzle holde

: 0 681 343 009 assembly

Opening pressure

bar Tolerance bar

Test lines : 1 680 750 015

Outside diameter : 6.0

x inside diameter: 3.0 x length mm : 600

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values ____

BEGINNING OF DELIVERY

Test pressure bar : 26.0 Tolerance bar : + 1.0

Prestroke mm : 3.25 Tolerance mm : + 0.05

Check

tolerance mm : +- 0.10

Rack travel in mm : 10.50 Tolerance mm : \leftarrow 1.50

: 1-5-3-6-2-Firing order

: 0-60-120-180-240 Phasing

: -300

BASIC SETTING

Rated speed rpm : 1300

Rack travel in mm: 11.65 Tolerance mm : +- 0.05

Del. quantity

cm3/1000 strokes : 106.0

cm3/1000 strokes : +- 0.5

Check tolerance cm3/1000s.

: +- 2.5

Spreed

cm3/1000 strokes : 3.5

Check tolerance

cm3/1000s. 8.0

Rated speed rpm : 300	Check tolerance cm3/1000s. : + 2.5
Rack travel in mm: 7.00	- Spreed - cm3/1000 strokes : 3.5
Tolerance mm : + 0.10	- Check tolerance
Del. quantity	- cm3/1000s. : 8.0
cm3/1000 strokes : 11.0	
cm3/1000 strokes : + 2.0	•
Check tolerance	
cm3/1000s. : +- 4.5	CONTROL LEVER
Spreed	CONTROL LEVER
cm3/1C00 strokes : 5.5	control lever
Check tolerance	position degree : 60.0
cm3/1000s. : 9.0	tolerance degree : + 4.0
1.0	
1	control lever
(B) SETTING OF INJECTION PUMP	position degree : 109.0
WITH GOVERNOR	tolerance degree : + 4.0
WELLI GOLGINION	
	RATED SPEED
GUIDE SLEEVE TRAVEL	· · · · · · · · · · · · · · · · · · ·
	rack travel mm : 10.60
Rated speed rpm : 300	Rated speed rpm : 1360
guide sleeve	Tolerance 1/min : + 5
travel mm : 1.05	
Tolerance mm : + 0.25	rack travel mm : 4.00
Total arise in a single	Rated speed rpm : 1505
Rated speed rpm : 1500	Tolerance 1/min : +- 15
guide steeve	. Total dilec Primitive
travel mm : 8.55	rack travel mm : 0.50
Tolerance mm : + 0.05	Tolerance mm : +- 0.50
	Rated speed rpm : 1650
Rated speed rpm : 500	Mated speed I pill . 1030
guide sleeve	
travel mm : 2.55	
Tolerance mm : + 0.25	LOW IDLE
Totel ance iiiii	LOW INCL
Rated speed rpm : 750	
guide sleeve	control lever
travel mm : 4.20	position degree : 68.0
Tolerance mm : + 0.10	tolerance degree : +- 4.0
1	· · · · · · · · · · · · · · · · · · ·
<u> </u>	control lever
GUIDE SLEEVE POSITION +	position degree : 19.0
+	tolerance degree : +- 4.0
Rated speed rpm : 1500	
+	Testing:
Rack travel in mm: 16.50 +	
Tolerance mm : $+$ 1.30 $+$	Rated speed rpm : 300
+	rack travel mm : 7.00 Tolerance mm : + 0.10
+	Tolerance mm : +- 0.10
FULL LOAD DELIVERY AT FULL LOAD STOP	
<u> </u>	Rated speed rpm : 100
Rated speed rpm : 1300 +	
Aneroid pressure +	CRT man main. :> 8.00
hPa : 900 +	
Del. quantity	Rated speed rpm : 375
cm3/1000 strokes : 106.0 +	
cm3/1000 strokes : +- 0.5 +	
†	TORQUE CONTROL

		+ Check tolerance
Rated speed rpm rack travel mm Tolerance mm	: 1300 : 11.65 : + 0.05	cm3/1000s. : 8.0 Aneroid pressure
Pated speed rom	• 800	+ hPa : - Rated speed rpm : 500
rack travel mm Tolerance mm	: 11.65 : + 0.05	+ Del. quantity + cm3/1000 strokes : 61.0 + cm3/1000 strokes : +- 1.0
ANEROID/ALTITUDE COMPENSATOR TEST		Check tolerance
CONFERENCE PEOT		cm3/1000 strokes : 3.5 Check tolerance
SETTING		cm3/1000s. : 8.0
Rated speed rpm Pressure hPa rack travel mm Tolerance mm	: 900 : 11.65	BREAKAWAY
MEASUREMENT		Rack travel in mm : 10.60 Rated speed rpm : 1360 Tolerance 1/min : +- 5
Pressure hPa Rated speed rpm	: - : 500	Toterance (/mm : += 3
Rated speed rpm	: 500	STARTING FUEL DELIVERY
Pressure hPa rack travel mm	: 0.40	Rated speed rpm : 100 rack travel mm : 12.90 Tolerance mm : + 0.10
Tolerance mm Pressure hPa	: 560	+ Del. quantity
rack travel mm Tolerance mm		cm3/1000 strokes : 76.5 cm3/1000 strokes : +- 7.5 check tolerance cm3/1000s. : +- 10.0
START CUT-OUT		+
Rated speed rpm Rated speed rpm		LOW IDLE
Check speed 1/min	: > 80	Rated speed rpm : 300 Del. quantity
Check speed 1/min	: < 240	+ cm3/1000 strokes : 11.0 + cm3/1000 strokes : ← 2.0 + Check tolerance
FUEL DELIVERY CHA	ARACTERISTICS	
Aneroid pressure	: 900	Check tolerance cm3/1000s. : 9.0
Rated speed rpm Del. quantity cm3/1000 strokes		‡
cm3/1000 strokes Check tolerance	: ← 2.0	
cm3/1000s. Spreed cm3/1000 strokes	: + 4.0 : 5.0	End of test specification sheet
CHID TOUG STRUKES	. ,,,,	Ī

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

Edition : 11.11.96 Test oil : ISO 4113

Combination No. : 9 400 085 377

Injection pump

Pump designation : PES6A95D410RS2857 EP type number : 9 400 084 036

Governor

Governer design. : RQV300...1250AB1284L

Governer no. : 9 420 080 372

Cust. part No. :

Customer-spec. information

Customer : DEUTZ-ARGENTINA

Motor : BF 6 L 9130

Power KW : 140.0

TEST BENCH REQUIREMENTS

Inlet line : 4.1

Test oil inlet

temp. °C : 40
Tolerance °C : + 2.0

Overflow valve : 1 419 992 198

Inlet press. bar : 1.5

Test nozzle holde

assembly : 0 681 343 009

Opening pressure

bar : 173.5 Tolerance bar : + 1.5

Test Lines : 1 680 750 014

Outside diameter : 6.0

x inside diameter: 2.0 x length mm 600

REMARKS

(A) INJECTION PUMP SETTING VALUES Set equal delivery quant.

per values _____

BEGINNING OF DELIVERY

Test pressure bar : 26.0 Tolerance bar : + 1.0

Prestroke mm : 2.80
Tolerance mm : + 0.05
Check
tolerance mm : + 0.10

Rack travel in mm : 10.50 Tolerance mm : +- 1.50

Firing order : 1-5-3-6-2-

: 4

Phasing : 0-60-120-180-240

: -300

BASIC SETTING

Rated speed rpm : 1250

Rack travel in mm : 11.25 Tolerance mm : + 0.05

Del. quantity

cm3/1000 strokes : 98.5 cm3/1000 strokes : +- 1.0

Check tolerance

cm3/1000s. : +- 3.0
Spreed

cm3/1000 strokes : 3.5

Check tolerance cm3/1000s. : 8.0

Del. quantity	Rated speed rpm	: 300	+ Aneroid pressure + hPa	: 900
Tolerance mm	Deal Association as	. 5.00		. 00 5
Del. quantity cm3/1000 strokes : 17.0 cm3/1000 strokes : + 2.0 Check tolerance cm3/1000s. : + 4.5 Spreed cm3/1000 strokes : 5.5 Check tolerance cm3/1000s. : + 4.5 Spreed cm3/1000s. : + 3.0 Spreed cm3/1000s. : + 3.0 Check tolerance cm3/1000s. : 8.0 CONTROL LEVER CONTROL CONTROL CREATENANCE CONTROL CONTROL CREATENACE CONTROL CONTROL CREATENACE				
cm3/1000 strokes : 17.0 cm3/1000 strokes : 2.0 cm3/1000 strokes : 3.5 cm3/1000 strokes : + 2.0 cm3/1000 strokes : 3.5 cm3/1000 strokes : 3.5 cm3/1000 strokes : 5.5 cm3/1000 strokes : 5.5 check tolerance cm3/1000s. : 8.0 CMIRCH LEVER CONTROL LEVER (B) SETTING OF INJECTION PUMP WITH GOVERNOR control lever position degree : 120.0 tolerance degree : + 4.0 GUIDE SLEEVE TRAVEL RATED SPEED Rated speed rpm : 1250 guide sleeve travet mm : 7.70 rack travel mm : 10.20 Rated speed rpm : 1295 tolerance 1/min : + 5 Tolerance mm : + 0.10 rack travel mm : 4.00 Rated speed rpm : 1400 Tolerance 1/min : + 15 Rated speed rpm : 900 guide sleeve travel mm : 5.35 rack travel mm : 0.50 Tolerance 1/min : + 0.50 Tolerance mm : + 0.25 Rated speed rpm : 300 guide sleeve travel mm : 0.85 Tolerance mm : + 0.25 Tolerance mm : + 0.50 Rated speed rpm : 1550 Rated speed rpm : 3.55 Tolerance mm : + 0.25 LOW IDLE Rated speed rpm : 3.05 guide sleeve travel mm : 9.05 Tolerance mm : + 0.25 Tolerance degree : + 4.0 Tolerance mm : + 0.25 Rated speed rpm : 300 rack travel mm : 5.00 Tolerance degree : + 4.0 Rated speed rpm : 1400 guide sleeve travel mm : + 0.25 Rated speed rpm : 300 rack travel mm : 5.00 Tolerance mm : + 0.10 Rated speed rpm : 300 rack travel mm : 5.00 Tolerance mm : + 0.10 Rated speed rpm : 100 Rated speed rpm : 375		: + 0.10		: +- 1.0
cm3/1000 strokes : + 2.0 Spreed 3.5 check tolerance cm3/1000S. : + 4.5 Spreed cm3/1000S. : 8.0 cm3/1000S. : 9.0 Check tolerance cm3/1000S. : 9.0 CONTROL LEVER CONTROL LEVER CONTROL LEVER RATED SPEED Rated speed rpm : 10.00 Rated speed rpm : 14.00 Rated speed rpm : 14.00 Rated speed rpm : 15.00 Rated		. 17.0		
Check tolerance cm3/1000 strokes : cm3/1000 strokes : Spreed cm3/1000 strokes : 5.5 cm3/1000 strokes : 6.0 Cm3/1000 strokes : 5.5 cm3/1000S. : 8.0 Check tolerance cm3/1000S. : 9.0 CONTROL LEVER (B) SETTING OF INJECTION PUMP WITH GOVERNOR CONTROL LEVER GUIDE SLEEVE TRAVEL RATED SPEED Rated speed rpm : 1250 guide sleeve travel mm : 7.70 RATED SPEED Tolerance mm : → 0.10 Rated speed rpm : 1295 Tolerance 1/min : → 5 Rated speed rpm : 900 guide sleeve travel mm : 5.35 Tolerance 1/min : → 15 Tolerance mm : → 0.25 rack travel mm : 0.50 Rated speed rpm : 300 guide sleeve travel mm : 0.85 Tolerance mm : → 0.50 Rated speed rpm : 500 guide sleeve travel mm : 0.25 LOW IDLE Rated speed rpm : 400 guide sleeve travel mm : - 0.25 LOW IDLE Rated speed rpm : 1400 guide sleeve travel mm : - 0.25 Tolerance mm : - 0.50 Rated speed rpm : - 500 guide sleeve travel mm : - 0.25 Rated speed rpm : 300 Rated speed rpm : - 1400 guide sleeve travel mm : - 0.25 Rated speed rpm : 300 Rated speed rpm : - 1400 guide sleeve travel mm : - 0.25 Rated speed rpm : - 5.00 Rated speed rpm : - 1400 guide sleeve travel mm : - 0.25 Rated speed rpm : - 5.00				: +- 3.0
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Control Lever Control Lever 0.50 Control Lever C		r	+ cm3/10008.	: 8.0
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(B) SETTING OF INJECTION PUMP WITH GOVERNOR GUIDE SLEEVE TRAVEL Rated speed rpm : 1250 guide sleeve	cm3/100US.	: 9.0	CONTROL LEVER	
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Rated speed rpm : 1350 Rack travel in mm : 16.50 Tolerance mm : + 1.30 Rated speed rpm : 375 FULL LOAD DELIVERY AT FULL LOAD STOP Rated speed rpm : 1250 Rated speed rpm : 1250			Tolerance mm	· + 0.10
Rated speed rpm : 1350 Rack travel in mm : 16.50 Tolerance mm : + 1.30 FULL LOAD DELIVERY AT FULL LOAD STOP Rated speed rpm : 1250 Rated speed rpm : 1250 Rated speed rpm : 1250	GUIDE SLEEVE POSIT	TION	+ Total arice man	0,10
Rated speed rpm : 1350 Rack travel in mm : 16.50 Tolerance mm : + 1.30 FULL LOAD DELIVERY AT FULL LOAD STOP Rated speed rpm : 1250 Rated speed rpm : 1250 Rated speed rpm : 1250			+ Rated speed rpm	: 100
Rack travel in mm : 16.50 Tolerance mm : + 1.30 FULL LOAD DELIVERY AT FULL LOAD STOP Rated speed rpm : 1250 Rated speed rpm : 1250 Rated speed rpm : 1250	Rated speed rom	: 135G	+	
Rack travel in mm : 16.50 Tolerance mm : + 1.30 FULL LOAD DELIVERY AT FULL LOAD STOP Rated speed rpm : 1250 Rated speed rpm : 1250	······· Abana / but		+ CRT mm min.	: > 7.00
FULL LOAD DELIVERY AT FULL LOAD STOP Rated speed rpm : 1250 Rated speed rpm : 1250 Rated speed rpm : 1250	Rack travel in mm	: 16.50	1	
FULL LOAD DELIVERY AT FULL LOAD STOP Rated speed rpm : 1250 Rated speed rpm : 1250			Rated speed rpm	: 375
Rated speed rpm : 1250 + Rated speed rpm : 1250	. CCT WITH HER		+	
Rated speed rpm : 1250 + Rated speed rpm : 1250		4 AT 5111 1 222 2727	TODALE ASSESSE	
	FULL LOAD DELIVERY	r AT FULL LOAD STOP	T TORQUE CONTROL	
	Dated speed non	• 1250	Rated speed rom	• 1250
T TOUR LIGHT . TILES	rated speed this	. 1250		
			1. I GOV CLOACE HAIL	. 11.65

Tolerance mm	: +- 0.05	+ Aneroid pressure + hPa : -
Rated speed rpm	: 800 : 11.25	Rated speed rpm : 500
rack travel mm Tolerance mm	: + 0.05	+ Del. quantity + cm3/1000 strokes : 83.5
roterance mm	. +- 0.05	+ cm3/1000 strokes : +- 1.0
		Check tolerance
ANEROID/ALTITUDE		- cm3/1000s. : + 3.0
COMPENSATOR TEST		+ Spreed
COMPENSATOR 1EST		+ cm3/1000 strokes : 3.5
		+ Check tolerance
CETTING		+ cm3/1000s. : 8.0
SETTING		T (1107 10003 0.0
Dated aroad sam	: 500	T
Rated speed rpm		BREAKAWAY
Pressure hPa		T DREADAWAI
rack travel mm		†
Tolerance mm	: ← 0.05	Dool Americal in man a 10, 20
14F 4 OLIO F14F1/F		+ Rack travel in mm : 10.20
MEASUREMENT		Rated speed rpm : 1295
		Tolerance 1/min : +- 5
Pressure hPa	: -	†
Rated speed rpm	: 500	İ
Rated speed rpm	: 500	STARTING FUEL DELIVERY
Pressure hPa	: 670	Rated speed rpm : 100
	: 1.60	+ rack travel mm : 16.10
Tolerance mm		+ Tolerance mm : + 0.10
roterance mm	0.10	1
	550	+ Del. quantity
Pressure hPa	: 550	+ cm3/1000 strokes : 160.0
rack travel mm	: 0.45	+ cm3/1000 strokes : $+$ 7.5
Tolerance mm	: +- 0.05	+ Check tolerance + cm3/1000S. : +- 10.0
START CUT-OUT		+
Rated speed rpm	• > 100	İ
Rated speed rpm		T LOW IDLE
kated speed rpm	: < 220	T LOW IDLE
Charle		Rated speed rpm : 300
Check	. > 90	· · · ·
speed 1/min	: > 80	+ Del. quantity + cm3/1000 strokes : 17.0
Check		
speed 1/min	: < 240	+ cm3/1000 strokes : +- 2.0
		+ Check tolerance
		+ cm3/1000s. : +- 4.5
FUEL DELIVERY CHA	ARACTERISTICS	+ Spreed
		+ cm3/1000 strokes : 5.5
Aneroid pressure		+ Check tolerance
hPa	: 900	+ cm3/1000s. : 9.0
Rated speed rpm	: 800	+
Del. quantity		+
cm3/1000 strokes	: 104.0	+
cm3/1000 strokes		+
LINECK TOLEMATICE	: ← 4.0	1
	· - 4 4.11	
Check tolerance cm3/1000s. Spread	: +- 4.0	Find of test specification sheet
cm3/1000s. Spreed		End of test specification sheet
cm3/1000s. Spreed cm3/1000 strokes		End of test specification sheet
cm3/1000s. Spreed		End of test specification sheet

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

: 11.11.96 Edition : ISO 4113 Test oil

Combination No. : 9 400 085 379

Injection pump

Pump designation : PES6A95D410RS2772 EP type number : 9 400 084 018

Governor

Governer design. : RQV300...1300AB1277L

Governer no. : 9 420 080 355

Cust. part No. :

Customer—spec. information Customer : MBB : OM 366 A Motor Power KW : 125.0

TEST BENCH REQUIREMENTS

Inlet line : 4.1

Test oil inlet

temp. °C Tolerance °C : +- 2.0

Overflow valve : 1 419 992 198

Inlet press. bar : 1.5

Test nozzle holde

: 0 681 343 009 assembly

Opening pressure

: 173.5 bar Tolerance bar : + 1.5

Test lines : 1 680 750 015

Outside diameter : 6.0

x inside diameter : 3.0 x length mm : 600

REMARKS

(A) INJECTION PUMP SETTING VALUES Set equal delivery quant.

per values _____

BEGINNING OF DELIVERY

Test pressure bar : 26.0 Tolerance bar : + 1.0

Prestroke mm 3.25 : +- 0.05 Tolerance mm Check tolerance mm : +- 0.10

Rack travel in mm : 10.50 Tolerance mm : + 1.50

Firing order : 1-5-3-6-2-

: 4

Phasing : 0-60-120-180-240

: -300

BASIC SETTING

Rated speed rpm : 1300

Rack travel in mm: 10.55 Tolerance mm : \leftarrow 0.05

Del. quantity

cm3/1000 strokes : 91.0

cm3/1000 strokes : + 1.0

Check tolerance

cm3/1000S. 3.0

Spreed

cm3/1000 strokes :

3.5

Check tolerance

cm3/1000s. : 8.0

Rated speed rpm	: 300	+ Check tolerance		
Marca opeca i piii	. 333		: +- 3.0	
		+ cm3/1000s.	: +- 5.0	
		+ Spreed		
Rack travel in mm	• 7 00	+ cm3/1000 strokes	: 3.5	
			. 3.5	
Tolerance mm	: ← 0.10	+ Check tolerance		
Del. quantity		+ cm3/1000s.	: 8.0	
	. 11.0	0.100001	. 0.0	
cm3/1000 strokes		†		
cm3/1000 strokes	: ← 2.0	+		
Check tolerance				
		T		
cm3/1000s.	: ← 4.5	→ CONTROL LEVER		
Spreed		1		
	: 5.5	+ control lever		
cm3/1000 strokes	; 3,3			
Check tolerance		position degree	: 108.0	
cm3/1000S.	: 9.0	+ tolerance degree		
CH3/ 10000.	. 7.0	toter arice degree	• • •••	
		†		
		+ RATED SPEED		
(B) SETTING OF IN	JECTION PLIMP	1		
	OFCITOR LOUR		. 0.50	
WITH GOVERNOR		+ rack travel mm		
		+ Rated speed rpm	: 1350	
		+ Tolerance 1/min		
		T roterance i/min	, 	
GUIDE SLEEVE TRAV	EL	+		
. =		legistrate in the rack travel mm	: 4.00	
D-4-4	. 700			
Rated speed rpm	: 300	+ Rated speed rpm		
guide sleeve		+ Tolerance 1/min	: + 15	
	: 1.05	1	•	
travel mm		T	0.50	
Tolerance mm	: 0.25	+ rack travel mm	: 0.50	
		+ Tolerance mm	: 0.50	
Dahad sussed sum	. 1500	•		
Rated speed rpm	: 1500	+ Rated speed rpm	: 1000	
guide sleeve		+		
travel mm	: 8.55	1		
		T		
Tolerance mm	: +- 0.05	+		_
		∔ LOW IDLE		
		,		
Dated apped nom	• 500	.1		
Rated speed rpm	: 500	+		
guide sleeve	: 500	+		
guide sleeve		+ control lever		
guide sleeve travel mm	: 2.55	control lever	. 49.0	
guide sleeve		position degree		
guide sleeve travel mm	: 2.55	₹		
guide sleeve travel mm Tolerance mm	: 2.55 : + 0.25	position degree		
guide sleeve travel mm Tolerance mm Rated speed rpm	: 2.55 : + 0.25	position degree tolerance degree		
guide sleeve travel mm Tolerance mm Rated speed rpm guide sleeve	: 2.55 : + 0.25 : 750	position degree		
guide sleeve travel mm Tolerance mm Rated speed rpm guide sleeve	: 2.55 : + 0.25 : 750	position degree tolerance degree		
guide sleeve travel mm Tolerance mm Rated speed rpm guide sleeve travel mm	: 2.55 : + 0.25 : 750 : 4.20	position degree tolerance degree Testing:	: +- 4.0	
guide sleeve travel mm Tolerance mm Rated speed rpm guide sleeve travel mm	: 2.55 : + 0.25 : 750	position degree tolerance degree Testing: Rated speed rpm	: +- 4.0 : 300	
guide sleeve travel mm Tolerance mm Rated speed rpm guide sleeve travel mm	: 2.55 : + 0.25 : 750 : 4.20	position degree tolerance degree Testing: Rated speed rpm	: +- 4.0 : 300	
guide sleeve travel mm Tolerance mm Rated speed rpm guide sleeve travel mm	: 2.55 : + 0.25 : 750 : 4.20	position degree tolerance degree Testing: Rated speed rpm	: +- 4.0 : 300	
guide sleeve travel mm Tolerance mm Rated speed rpm guide sleeve travel mm Tolerance mm	: 2.55 : + 0.25 : 750 : 4.20 : + 0.10	position degree tolerance degree Testing:	: +- 4.0 : 300	
guide sleeve travel mm Tolerance mm Rated speed rpm guide sleeve travel mm	: 2.55 : + 0.25 : 750 : 4.20 : + 0.10	position degree tolerance degree Testing: Rated speed rpm rack travel mm Tolerance mm	: +- 4.0 : 300 : 7.00 : +- 0.10	
guide sleeve travel mm Tolerance mm Rated speed rpm guide sleeve travel mm Tolerance mm	: 2.55 : + 0.25 : 750 : 4.20 : + 0.10	position degree tolerance degree Testing: Rated speed rpm rack travel mm Tolerance mm	: +- 4.0 : 300 : 7.00 : +- 0.10	
guide sleeve travel mm Tolerance mm Rated speed rpm guide sleeve travel mm Tolerance mm GUIDE SLEEVE POSIT	: 2.55 : + 0.25 : 750 : 4.20 : + 0.10	position degree tolerance degree Testing: Rated speed rpm	: +- 4.0 : 300 : 7.00 : +- 0.10	
guide sleeve travel mm Tolerance mm Rated speed rpm guide sleeve travel mm Tolerance mm	: 2.55 : + 0.25 : 750 : 4.20 : + 0.10	position degree tolerance degree Testing: Rated speed rpm rack travel mm Tolerance mm Rated speed rpm	: +- 4.0 : 300 : 7.00 : +- 0.10 : 100	
guide sleeve travel mm Tolerance mm Rated speed rpm guide sleeve travel mm Tolerance mm GUIDE SLEEVE POSIT	: 2.55 : + 0.25 : 750 : 4.20 : + 0.10	position degree tolerance degree Testing: Rated speed rpm rack travel mm Tolerance mm	: +- 4.0 : 300 : 7.00 : +- 0.10 : 100	
guide sleeve travel mm Tolerance mm Rated speed rpm guide sleeve travel mm Tolerance mm GUIDE SLEEVE POSIT	: 2.55 : + 0.25 : 750 : 4.20 : + 0.10	position degree tolerance degree Testing: Rated speed rpm rack travel mm Tolerance mm Rated speed rpm	: +- 4.0 : 300 : 7.00 : +- 0.10 : 100	
guide sleeve travel mm Tolerance mm Rated speed rpm guide sleeve travel mm Tolerance mm GUIDE SLEEVE POSIT Rated speed rpm Rack travel in mm	: 2.55 : + 0.25 : 750 : 4.20 : + 0.10 TION : 1500 : 16.50	position degree tolerance degree Testing: Rated speed rpm rack travel mm Tolerance mm Rated speed rpm CRT mm min.	: +- 4.0 : 300 : 7.00 : +- 0.10 : 100 : > 8.00	
guide sleeve travel mm Tolerance mm Rated speed rpm guide sleeve travel mm Tolerance mm GUIDE SLEEVE POSIT	: 2.55 : + 0.25 : 750 : 4.20 : + 0.10 TION : 1500 : 16.50	position degree tolerance degree Testing: Rated speed rpm rack travel mm Tolerance mm Rated speed rpm	: +- 4.0 : 300 : 7.00 : +- 0.10 : 100 : > 8.00	
guide sleeve travel mm Tolerance mm Rated speed rpm guide sleeve travel mm Tolerance mm GUIDE SLEEVE POSIT Rated speed rpm Rack travel in mm	: 2.55 : + 0.25 : 750 : 4.20 : + 0.10 TION : 1500 : 16.50	position degree tolerance degree Testing: Rated speed rpm rack travel mm Tolerance mm Rated speed rpm CRT mm min.	: +- 4.0 : 300 : 7.00 : +- 0.10 : 100 : > 8.00	
guide sleeve travel mm Tolerance mm Rated speed rpm guide sleeve travel mm Tolerance mm GUIDE SLEEVE POSIT Rated speed rpm Rack travel in mm	: 2.55 : + 0.25 : 750 : 4.20 : + 0.10 TION : 1500 : 16.50	position degree tolerance degree Testing: Rated speed rpm rack travel mm Tolerance mm Rated speed rpm CRT mm min.	: +- 4.0 : 300 : 7.00 : +- 0.10 : 100 : > 8.00	
guide sleeve travel mm Tolerance mm Rated speed rpm guide sleeve travel mm Tolerance mm GUIDE SLEEVE POSIT Rated speed rpm Rack travel in mm Tolerance mm	: 2.55 : + 0.25 : 750 : 4.20 : + 0.10 TION : 1500 : 16.50 : + 1.30	position degree tolerance degree Testing: Rated speed rpm rack travel mm Tolerance mm Rated speed rpm CRT mm min. Rated speed rpm	: +- 4.0 : 300 : 7.00 : +- 0.10 : 100 : > 8.00	
guide sleeve travel mm Tolerance mm Rated speed rpm guide sleeve travel mm Tolerance mm GUIDE SLEEVE POSIT Rated speed rpm Rack travel in mm Tolerance mm	: 2.55 : + 0.25 : 750 : 4.20 : + 0.10 TION : 1500 : 16.50	position degree tolerance degree Testing: Rated speed rpm rack travel mm Tolerance mm Rated speed rpm CRT mm min.	: +- 4.0 : 300 : 7.00 : +- 0.10 : 100 : > 8.00	
guide sleeve travel mm Tolerance mm Rated speed rpm guide sleeve travel mm Tolerance mm GUIDE SLEEVE POSIT Rated speed rpm Rack travel in mm Tolerance mm	: 2.55 : + 0.25 : 750 : 4.20 : + 0.10 TION : 1500 : 16.50 : + 1.30	position degree tolerance degree Testing: Rated speed rpm rack travel mm Tolerance mm Rated speed rpm CRT mm min. Rated speed rpm	: +- 4.0 : 300 : 7.00 : +- 0.10 : 100 : > 8.00	
guide steeve travel mm Tolerance mm Rated speed rpm guide steeve travel mm Tolerance mm GUIDE SLEEVE POSIT Rated speed rpm Rack travel in mm Tolerance mm	: 2.55 : + 0.25 : 750 : 4.20 : + 0.10 TION : 1500 : 16.50 : + 1.30	position degree tolerance degree Testing: Rated speed rpm rack travel mm Tolerance mm Rated speed rpm CRT mm min. Rated speed rpm TORQUE CONTROL	: +- 4.0 : 300 : 7.00 : +- 0.10 : 100 : > 8.00 : 325	
guide sleeve travel mm Tolerance mm Rated speed rpm guide sleeve travel mm Tolerance mm GUIDE SLEEVE POSIT Rated speed rpm Rack travel in mm Tolerance mm FULL LOAD DELIVERY	: 2.55 : + 0.25 : 750 : 4.20 : + 0.10 TION : 1500 : 16.50 : + 1.30 TAT FULL LOAD STOP : 1300	position degree tolerance degree Testing: Rated speed rpm rack travel mm Tolerance mm Rated speed rpm CRT mm min. Rated speed rpm TORQUE CONTROL Rated speed rpm	: +- 4.0 : 300 : 7.00 : +- 0.10 : 100 : > 8.00 : 325 : 1300	
guide sleeve travel mm Tolerance mm Rated speed rpm guide sleeve travel mm Tolerance mm GUIDE SLEEVE POSIT Rated speed rpm Rack travel in mm Tolerance mm FULL LOAD DELIVERY	: 2.55 : + 0.25 : 750 : 4.20 : + 0.10 TION : 1500 : 16.50 : + 1.30 TAT FULL LOAD STOP : 1300	position degree tolerance degree Testing: Rated speed rpm rack travel mm Tolerance mm Rated speed rpm CRT mm min. Rated speed rpm TORQUE CONTROL Rated speed rpm rack travel mm	: +- 4.0 : 300 : 7.00 : +- 0.10 : 100 : > 8.00 : 325 : 1300 : 10.55	
guide sleeve travel mm Tolerance mm Rated speed rpm guide sleeve travel mm Tolerance mm GUIDE SLEEVE POSIT Rated speed rpm Rack travel in mm Tolerance mm FULL LOAD DELIVERY Rated speed rpm Aneroid pressure	: 2.55 : + 0.25 : 750 : 4.20 : + 0.10 TION : 1500 : 16.50 : + 1.30 TAT FULL LOAD STOP : 1300	position degree tolerance degree Testing: Rated speed rpm rack travel mm Tolerance mm Rated speed rpm CRT mm min. Rated speed rpm TORQUE CONTROL Rated speed rpm rack travel mm	: +- 4.0 : 300 : 7.00 : +- 0.10 : 100 : > 8.00 : 325 : 1300 : 10.55	-
guide sleeve travel mm Tolerance mm Rated speed rpm guide sleeve travel mm Tolerance mm GUIDE SLEEVE POSIT Rated speed rpm Rack travel in mm Tolerance mm FULL LOAD DELIVERY Rated speed rpm Aneroid pressure hPa	: 2.55 : + 0.25 : 750 : 4.20 : + 0.10 TION : 1500 : 16.50 : + 1.30 TAT FULL LOAD STOP : 1300 : 800	position degree tolerance degree Testing: Rated speed rpm rack travel mm Tolerance mm Rated speed rpm CRT mm min. Rated speed rpm TORQUE CONTROL Rated speed rpm	: +- 4.0 : 300 : 7.00 : +- 0.10 : 100 : > 8.00 : 325 : 1300 : 10.55	
guide sleeve travel mm Tolerance mm Rated speed rpm guide sleeve travel mm Tolerance mm GUIDE SLEEVE POSIT Rated speed rpm Rack travel in mm Tolerance mm FULL LOAD DELIVERY Rated speed rpm Aneroid pressure hPa	: 2.55 : + 0.25 : 750 : 4.20 : + 0.10 TION : 1500 : 16.50 : + 1.30 TAT FULL LOAD STOP : 1300 : 800	position degree tolerance degree Testing: Rated speed rpm rack travel mm Tolerance mm Rated speed rpm CRT mm min. Rated speed rpm TORQUE CONTROL Rated speed rpm rack travel mm Tolerance mm	: +- 4.0 : 300 : 7.00 : +- 0.10 : 100 : > 8.00 : 325 : 1300 : 10.55 : +- 0.05	
guide sleeve travel mm Tolerance mm Rated speed rpm guide sleeve travel mm Tolerance mm GUIDE SLEEVE POSIT Rated speed rpm Rack travel in mm Tolerance mm FULL LOAD DELIVERY Rated speed rpm Aneroid pressure hPa	: 2.55 : + 0.25 : 750 : 4.20 : + 0.10 TION : 1500 : 16.50 : + 1.30 TAT FULL LOAD STOP : 1300 : 800	position degree tolerance degree Testing: Rated speed rpm rack travel mm Tolerance mm Rated speed rpm CRT mm min. Rated speed rpm TORQUE CONTROL Rated speed rpm rack travel mm Tolerance mm Rated speed rpm	: + 4.0 : 300 : 7.00 : + 0.10 : 100 : > 8.00 : 325 : 1300 : 10.55 : + 0.05 : 800	
guide sleeve travel mm Tolerance mm Rated speed rpm guide sleeve travel mm Tolerance mm GUIDE SLEEVE POSIT Rated speed rpm Rack travel in mm Tolerance mm FULL LOAD DELIVERY Rated speed rpm Aneroid pressure hPa Del. quantity cm3/1000 strokes	: 2.55 : + 0.25 : 750 : 4.20 : + 0.10 TION : 1500 : 16.50 : + 1.30 TAT FULL LOAD STOP : 1300 : 800 : 91.0	position degree tolerance degree Testing: Rated speed rpm rack travel mm Tolerance mm Rated speed rpm CRT mm min. Rated speed rpm TORQUE CONTROL Rated speed rpm rack travel mm Tolerance mm Rated speed rpm	: + 4.0 : 300 : 7.00 : + 0.10 : 100 : > 8.00 : 325 : 1300 : 10.55 : + 0.05 : 800	
guide sleeve travel mm Tolerance mm Rated speed rpm guide sleeve travel mm Tolerance mm GUIDE SLEEVE POSIT Rated speed rpm Rack travel in mm Tolerance mm FULL LOAD DELIVERY Rated speed rpm Aneroid pressure hPa	: 2.55 : + 0.25 : 750 : 4.20 : + 0.10 TION : 1500 : 16.50 : + 1.30 TAT FULL LOAD STOP : 1300 : 800 : 91.0	position degree tolerance degree Testing: Rated speed rpm rack travel mm Tolerance mm Rated speed rpm CRT mm min. Rated speed rpm TORQUE CONTROL Rated speed rpm rack travel mm Tolerance mm Rated speed rpm	: + 4.0 : 300 : 7.00 : + 0.10 : 100 : > 8.00 : 325 : 1300 : 10.55 : + 0.05 : 800	
guide sleeve travel mm Tolerance mm Rated speed rpm guide sleeve travel mm Tolerance mm GUIDE SLEEVE POSIT Rated speed rpm Rack travel in mm Tolerance mm FULL LOAD DELIVERY Rated speed rpm Aneroid pressure hPa Del. quantity cm3/1000 strokes	: 2.55 : + 0.25 : 750 : 4.20 : + 0.10 TION : 1500 : 16.50 : + 1.30 TAT FULL LOAD STOP : 1300 : 800 : 91.0	position degree tolerance degree Testing: Rated speed rpm rack travel mm Tolerance mm Rated speed rpm CRT mm min. Rated speed rpm TORQUE CONTROL Rated speed rpm rack travel mm Tolerance mm	: + 4.0 : 300 : 7.00 : + 0.10 : 100 : > 8.00 : 325 : 1300 : 10.55 : + 0.05 : 800	

Rated speed rpm	• 1000	+ Aneroid pressure + hPa : 800	
rack travel mm Tolerance mm	: 11.00	Rated speed rpm : 1000 + Del. quantity	
10001 01100 1111	. 5.15	- cm3/1000 strokes : 91.5	
····		} cm3/1000 strokes : +- 2.0	
ANEROID/ALTITUDE		+ Check tolerance	
COMPENSATOR TEST		+ cm3/1000s. : +- 4.0	
		+ Spreed + cm3/1000 strokes : 5.0	
SETTING		Check tolerance	
		+ cm3/1000s. : 8.0	
Rated speed rpm Pressure hPa	: 500	+	
Pressure hPa	: 800	+ Aneroid pressure	
rack travel mm	: 17.45	+ hPa : -	
Tolerance mm	: + 0.05	Rated speed rpm : 500	
MEASUREMENT		+ Del. quantity + cm3/1000 strokes : 62.0	
HEADUREMENT		+ cm3/1000 strokes : + 1.0	
Pressure hPa	: -		
Rated speed rpm	: 500	Check tolerance cm3/1000s. : + 3.0	
		→ Spreed	
Rated speed rpm	: 500	cm3/1000 strokes : 3.5	
Danasius hDs	. 500	† Check tolerance + cm3/1000s. : 8.0	
Pressure hPa rack travel mm		t cm3/1000s. : 8.0	
Tolerance mm			
TOCCT GITCE MAIN	5.10	+ BREAKAWAY	
Pressure hPa	: 310	+	
rack travel mm		+	
Tolerance mm	: 0.05	Rack travel in mm: 9.50	
		+ Rated speed rpm : 1350 + Tolerance 1/min : + 5	
START CUT-OUT		Tolerance 1/min : + 5	
START COT OUT			
Rated speed rpm	: > 100		
Rated speed rpm	: < 220	+ STARTING FUEL DELIVERY	
AL I		Potest aread man 100	
Check speed 1/min	: > 80	+ Rated speed rpm : 100 + rack travel mm : 13.30	
Speed (/min Check	. / 00	+ Tolerance mm : + 0.10	
speed 1/min	: < 240	Del. quantity	
- p ''''''''	-	+ cm3/1000 strokes : 82.5	
		- + cm3/1000 strokes : + 7.5	
FUEL DELIVERY CHA	ARACTERISTICS	+ Check tolerance + cm3/1000s. : +- 10.0	
Aneroid pressure		+	
hPa	: 800	+	
Rated speed rpm	: 800	†	
Dei. quantity	. 90 5	+ LOW IDLE	_
cm3/1000 strokes cm3/1000 strokes		I FOM INCE	
Check tolerance	2.0	Rated speed rpm : 300	
cm3/1000s.	: +- 4.0	+ Del. quantity	
Spreed		+ cm3/1000 strokes : 11.0	
cm3/1000 strokes	: 5.0	+ cm3/1000 strokes : + 2.0	
Check tolerance	2.2	theck tolerance	
cm3/1000s.	: 8.0	+ cm3/1000s. : +- 4.5	
		+ Spreed + cm3/1000 strokes : 5.5	
		T miny loon attitudes	

Check cm3/10	tolera 00s.	ance	:	9.0		
End of	test	speci	ficati	ion sh	eet	

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

Edition Test oil

: 11.11.96 : ISO 4113

Combination No. : 9 400 085 390

Injection pump

Pump designation : PES6A95D41ORS2886 EP type number : 9 400 084 039

Governor

Governer design. : RQV300...1300AB1310L

Governer no. : 9 420 080 388

Cust. part No. : 0260746902

Customer-spec. information

Customer : MBB : OM 366LA/EURO I Motor

: 150.0 Power KW

TEST BENCH REQUIREMENTS

Inlet line : 4.1

Test oil inlet

temp. °C

Tolerance °C

2.0

Overflow valve : 1 419 992 198

Inlet press. bar : 1.5

Test nozzle holde

assembly

: 0 681 343 009

Opening pressure

har

173.5

Tolerance bar

: **←** 1.5

Test lines : 1 680 750 015

Outside diameter : 6.0

x inside diameter : 3.0 600 x length mm :

REMARKS

(A) INJECTION PUMP SETTING VALUES Set equal delivery quant.

per values _____

BEGINNING OF DELIVERY

Test pressure bar : 26.0 Tolerance bar : +- 1.0

Prestroke mm : + 0.05 Tolerance mm

Check

: + 0.10tolerance mm

Rack travel in mm: 10.50 : **←** 1.50 Tolerance mm

Firing order : 1-5-3-6-2-

: 4

Phasing : 0-60-120-180-240

BASIC SETTING

Rated speed rpm : 1300

Rack travel in mm: 11.85 : +- 0.05 Tolerance mm

Del. quantity

cm3/1000s.

cm3/1000 strokes : 95.0

cm3/1000 strokes : + 1.0

Check tolerance

: +- 3.0

Spreed

cm3/1000 strokes :

3.5

Check tolerance

cm3/1000s.

8.0

Rated speed rpm	: 300	+ Check tolerance cm3/1000s.	
Rack travel in m	m: 8.10	+ Spreed + cm3/1000 strokes	: 3.5
Tolerance mm		+ Check tolerance	
Del. quantity		+ cm3/1000s.	: 8.0
cm3/1000 strokes	: 13.0	1	
cm3/1000 strokes	· + 2.0	1	
Check tolerance	2.0	<u> </u>	
Check tolerance cm3/1000s.	• +- 45	CONTROL LEVER	
Spreed	• • • • • • • • • • • • • • • • • • • •	1 CONTROL ELECT	
cm3/1000 strokes	. 55	T control lever	
Check tolerance		+ position degree	. 42.0
		tolerance degree	
cm3/1000s.	: 9.0	toterance degree	: += 4.0
		T	
(0) 05777110 05 7	ALLEGE ON THE	+ control lever	. 440.0
(B) SETTING OF I	NIECITON DOWN	+ position degree	
WITH GOVERNOR		+ tolerance degree	: +- 4.0
		+	
		+ RATED SPEED	
GUIDE SLEEVE TRA	VEL	+	
		+ rack travel mm	
Rated speed rpm	: 300	+ Rated speed rpm	
guide sleeve		+ Tolerance 1/min	: ← 5
travel mm	: 1.05	+	
Tolerance mm	: +- 0.25	rack travel mm Rated speed rpm Tolerance 1/min	: 4.00
		+ Rated speed rpm	: 1530
Rated speed rpm	: 1500	+ Tolerance 1/min	: +- 15
guide sleeve	,500	1	
travel mm	: 8.55	rack travel mm	: 0.50
Tolerance mm		+ Tolerance mm	
TO CET BILLE IMM	. 1 0.05	Rated speed rpm	
Rated speed rpm	. 500	T Rated Speed Thiii	. 1000
rated speed rpill	: 500	T	
guide sleeve	: 2.55	T	
travel mm Tolerance mm	. 2.33	1011 7015	
loterance mm	: + 0.25	+ LOW IDLE	
D. A. J. S. S. S. J. S. S. S. S. S. S. S. S. S. S. S. S. S.	750	†	
Rated speed rpm	: 750	T	
guide sleeve	. 22	+ control lever	70.0
travel mm	: 4.20	+ position degree	
Tolerance mm	: 0.10	† tolerance degree	: +- 4.0
		†	
		+ control lever	. 24.0
GUIDE SLEEVE POS	LTION	+ position degree	: 27.0
	4	tolerance degree	: +- 4.0
Rated speed rpm	: 1500	†	
		† Testing:	
Rack travel in mr	n: 16.50	+	
Tolerance mm	: +- 1.30	+ Rated speed rpm	: 300
		rack travel mm Tolerance mm	: 8.10
		† Tolerance mm	: ← 0.10
FULL LOAD DELIVER	RY AT FULL LOAD STOP	+	
		+ Rated speed rpm	: 100
Rated speed rpm	: 1300	+	_
Aneroid pressure		+ CRT mm min.	: > 9.70
hPa	: 900	1	
Del. quantity	. , , , , ,	Rated speed rpm	: 375
cm3/1000 strokes	• 95.0	T Marea Speed (pill)	. 0,0
cm3/1000 strokes		Ι	
UID/ IUUU STrokes	. +- 1.0	TORQUE CONTROL	
		T TORGOE CONTROL	

		+ Rated speed rpm : 700
Rated speed rpm		+ Del. quantity
rack travel mm		+ cm3/1000 strokes : 88.5
Tolerance mm	: ← 0.05	+ cm3/1000 strokes : +- 2.0 + Check tolerance
Rated speed rpm	• 700	+ cm3/1000s. : +- 4.0
rack travel mm	: 12.25	+ Spreed
Tolerance mm		- cm3/1000 strokes : 5.0
roter ance man	0.05	Check tolerance
Rated speed rpm	: 800	+ cm3/1000s. : 8.0
rack travel mm		1
Tolerance mm	: +- 0.05	Aneroid pressure
		+ hPa : 900
Rated speed rpm	: 1125	+ Rated speed rpm : 800
rack travel mm		+ Del. quantity
Tolerance mm		+ cm3/1000 strokes : 90.0
		+ cm3/1000 strokes : +- 2.0
		+ Check tolerance
ANEROID/ALTITUDE		$\frac{1}{2}$ cm3/1000s. : +- 4.0
COMPENSATOR TEST		+ Spreed
		+ cm3/1000 strokes : 5.0
		† Check tolerance
SETTING		† cm3/1000s. : 8.0
		+
Rated speed rpm		+ Ameroid pressure
Pressure hPa	: 900	+ hPa : -
rack travel mm	: 12.25	+ Rated speed rpm : 500
Tolerance mm	: ← 0.05	+ Del. quantity
		+ cm3/1000 strokes : 48.0
MEASUREMENT		+ cm3/1000 strokes : +- 1.0
0		Check tolerance
Pressure hPa	. 500	+ cm3/1000s. : + 3.0
Rated speed rpm	: 500	+ Spreed + cm3/1000 strokes : 3.5
Dated aroud non	: 500	+ Check tolerance
Rated speed rpm	: 500	- cm3/1000s. : 8.0
Pressure hPa	: 280	I (11137 13003)
rack travel mm	: 0.60	
Tolerance mm	: +- 0.10	# BREAKAWAY
10001 01100 11411		
Pressure hPa	: 430	
rack travel mm	: 1.55	+ Rack travel in mm : 10.80
Tolerance mm	: 0.05	+ Rated speed rpm : 1385
		+ Tolerance 1/min : + 5
		+
START CUT-OUT		+
		+
Rated speed rpm		† STARTING FUEL DELIVERY
Rated speed rpm	: < 250	†
		+ Rated speed rpm : 100
Check		+ rack travel mm : 14.90
speed 1/min	: > 80	+ Tolerance mm : + 0.10
Check		+ Del. quantity
speed 1/min	: < 260	+ cm3/1000 strokes : 93.0
		+ cm3/1000 strokes : +- 7.5 + Check tolerance
ELIEL NELTUENY CHA	DACTEDISTICS	- theck tolerance - cm3/1000s. : + 10.0
FUEL DELIVERY CHA	IKAC (EKTO (TC)	I (m5/1000). : 10.0
Anonoid managemen		I
Aneroid pressure hPa	: 900	I
IICa	. 700	i

Rated speed rpm : 300

Del. quantity

cm3/1000 strokes : 13.0

cm3/1000 strokes : + 2.0

Check tolerance

cm3/1000s. : + 4.5

Spreed

cm3/1000 strokes : 5.5

Check tolerance

cm3/1000s. : 9.0

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

Edition : 11.11.96 Test oil : ISO 4113

Combination No. : 9 400 085 391

Injection pump

Pump designation : PES6A95D410RS2886 EP type number : 9 400 084 039

Governor

Governer design. : RQV300...1300AB1310L

Governer no. : 9 420 080 388

Cust. part No. : 0260745802

Customer-spec. information

Customer : MBB

Motor : OM 366LA/EURO I

Power KW : 150.0

TEST BENCH REQUIREMENTS

Inlet line : 4.1

Test oil inlet

temp. $^{\circ}$ C : 40 Tolerance $^{\circ}$ C : \leftarrow 2.0

Overflow valve : 1 419 992 198

Inlet press. bar : 1.5

Test nozzle holde

assembly : 0 681 343 009

Opening pressure

bar : 173.5 Tolerance bar : + 1.5

Test Lines : 1 680 750 015

Outside diameter : 6.0

x inside diameter : 3.0
x length mm : 600

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values _____

BEGINNING OF DELIVERY

Test pressure bar : 26.0 Tolerance bar : + 1.0

Prestroke mm : 3.00 Tolerance mm : + 0.05

Check

tolerance mm : +- 0.10

Rack travel in mm : 10.50 Tolerance mm : + 1.50

Firing order : 1-5-3-6-2-

: 4

Phasing : 0-60-120-180-240

: -300

BASIC SETTING

Rated speed rpm : 1300

Rack travel in mm : 11.85
Tolerance mm : + 0.05

Total de limit

Del. quantity cm3/1000 strokes : 95.0

cm3/1000 strokes : +- 1.0

Check tolerance

cm3/1000s. : \leftarrow 3.0

Spreed

cm3/1000 strokes : 3.5

Check tolerance

cm3/1000s. : 8.0

Rated speed rpm : 300	+ Check tolerance
	+ cm3/1000s. : $+$ 3.0
	+ Spreed
Dool Annual Summary 0 10	
Rack travel in mm: 8.10	+ cm3/1000 strokes : 3.5
Tolerance mm : + 0.10	+ Check tolerance
Del. quantity	+ cm3/1000s. : 8.0
cm3/1000 strokes : 13.0	+
cm3/1000 strokes : +- 2.0	1
Check tolerance	
cm3/1000s. : +- 4.5	CONTROL LEVER
	T CONTROL LEVER
Spreed	.
cm3/1000 strokes : 5.5	+ control lever
Check tolerance	position degree : 62.0
cm3/1000s. : 9.0	+ tolerance degree : + 4.0
	+
	+ control lever
(B) SETTING OF INJECTION PUMP	position degree : 110.0
WITH GOVERNOR	tolerance degree : + 4.0
MILL GOVERNOR	+ Loterance degree : + 4.0
	†
	+ RATED SPEED
GUIDE SLEEVE TRAVEL	+
	+ rack travel mm : 10.80
Rated speed rpm : 300	+ Rated speed rpm : 1385
guide sleeve	+ Tolerance 1/min : + 5
travel mm : 1.05	Totalia Italia
	T made Americal com / 00
Tolerance mm : + 0.25	+ rack travel mm : 4.00
	+ Rated speed rpm : 1530
Rated speed rpm : 1500	+ Tolerance 1/min : +- 15
guide sleeve	+
travel mm : 8.55	rack travel mm : 0.50
Tolerance mm : + 0.05	+ Tolerance mm : + 0.50
TOTAL CO.O.	Rated speed rpm : 1650
500	T Rated speed rpm : 1000
Rated speed rpm : 500	†
guide sleeve	+
travel mm : 2.55	+
Tolerance mm : \leftarrow 0.25	+ LOW IDLE
	+
Rated speed rpm : 750	1
guide sleeve	+ control lever
Tolerance mm : +- 0.10	tolerance degree : + 4.0
	†
	+ control lever
GUIDE SLEEVE POSITION	+ position degree : 21.0
	+ tolerance degree : +- 4.0
Rated speed rpm : 1500	
nated speed (pin 1 1200	+ Testing:
Dock thought in man a 14 50	Tresting.
Rack travel in mm: 16.50	T Detail mond one : 700
Tolerance mm : + 1.30	+ Rated speed rpm : 300
	+ rack travel mm : 8.10
	+ Tolerance mm : + 0.10
FULL LOAD DELIVERY AT FULL LOAD STOP	+
	Rated speed rpm : 100
Rated speed rpm : 1300	1
Aneroid pressure	+ CRT mm main. :> 9.70
	1 000 000 0000
· · · · · · · · · · · · · · · · · · ·	T Poted speed pure : 775
Del. quantity	Rated speed rpm : 375
cm3/1000 strokes : 95.0	†
cm3/1000 strokes : +- 1.0	+
	† TORQUE CONTROL
	•

		+ Rated speed rpm : 700
Rated speed rpm		+ Del. quantity
rack travel mm		+ cm3/1000 strokes : 88.5
Tolerance mm	: ← 0.05	+ cm3/1000 strokes : +- 2.0
B 1 1	700	Check tolerance
Rated speed rpm		$+ \text{ cm}^3/1000\text{s}. : + 4.0$
rack travel mm		+ Spreed
Tolerance mm	: ← 0.05	+ cm3/1000 strokes : 5.0
6		theck tolerance
Rated speed rpm		+ cm3/1000s. : 8.0
rack travel mm		***************************************
Tolerance mm	: + 0.05	+ Aneroid pressure + hPa : 900
Detect opposit non	: 1125	
Rated speed rpm		, , , , , , , , , , , , , , , , , , , ,
rack travel mm	_	+ Del. quantity + cm3/1000 strokes : 90.0
Tolerance mm	: +- 0.05	+ cm3/1000 strokes : +- 2.0
		Check tolerance
ANERGIA (A) TITUE		
ANEROID/ALTITUDE		cm3/1000s. : +- 4.0
COMPENSATOR TEST		+ Spreed + cm3/1000 strokes : 5.0
		+ cm3/1000 strokes : 5.0 + Check tolerance
AFT#711C		
SETTING		cm3/1000s. : 8.0
Rated speed rpm	: 500	Aneroid pressure
Pressure hPa	: 900	+ hPa : -
rack travel mm	: 12.25	Rated speed rpm : 500
Tolerance mm	: + 0.05	Del. quantity
totetaine and	0.03	- cm3/1000 strokes : 48.0
MEASUREMENT		cm3/1000 strokes : + 1.0
MEASONEMENT		Check tolerance
Pressure hPa	• -	- cm3/1000s. : +- 3.0
Rated speed rpm	500	Spreed
Mateu speed i bii	. 300	- cm3/1000 strokes : 3.5
Rated speed rpm	: 500	+ Check tolerance
Matta opeca . p.ii	. 300	+ cm3/1000s. : 8.0
Pressure hPa	: 280	+
rack travel mm	: 0.60	
Tolerance mm	: ← 0.10	+ BREAKAWAY
		+
Pressure hPa	: 430	+
rack travel mm	: 1.55	+ Rack travel in mm : 10.80
Tolerance mm	: ← 0.05	+ Rated speed rpm : 1385
		+ Tolerance 1/min : + 5
	·· <u>···································</u>	 +
START CUT-OUT		†
Data d annual man	: > 100	STARTING FUEL DELIVERY
Rated speed rpm	_	I STANTING FOLL PELLVENT
Rated speed rpm	. ` 230	Rated speed rpm : 100
Chack		rack travel mm : 14.90
Check speed 1/min	: > 80	Tolerance mm : + 0.10
Check	. / 00	Del. quantity
speed 1/min	: < 260	- cm3/1000 strokes : 93.0
speed i/mill	. ` 200	cm3/1000 strokes : +- 7.5
		Check tolerance
FUEL DELIVERY CHA	RACTERISTICS	- cm3/1000s. : + 10.0
THE PERSON OFF		+
Aneroid pressure		}
hPa	: 900	+
· · · · •		•

Rated speed rpm Del. quantity	:	300	
cm3/1000 strokes	:	13.0	
cm3/1000 strokes	: +-	2.0	
Check tolerance cm3/1000S.	: +-	4.5	
Spreed cm3/1000 strokes	:	5.5	
Check tolerance cm3/1000S.	:	9.0	

Note remarks

Refer to Service Info for test and adjustment instructions.
See microcard(s) W400/...

Edition : 11.11.96 Test oil : ISO 4113

Combination No. : 9 400 085 393

Injection pump

Pump designation : PES4A95D410RS2887 EP type number : 9 400 084 040

Governor

Governer design. : RQV300...1300AB1311L

Governer no. : 9 420 080 390

Cust. part No. : 0260746802

Customer-spec. information

Customer : MBB

Motor : OM 364 LA/EURO I

Power KW : 100.0

TEST BENCH REQUIREMENTS

Inlet line : 4.1

Test oil inlet

temp. °C : 40 Tolerance °C : +- 2.0

Overflow valve : 1 419 992 198

Inlet press. bar : 1.5

Test nozzle holde

assembly : 0 681 343 009

Opening pressure

bar : 173.5 Tolerance bar : +- 1.5

Test lines : 1 680 750 015

Outside diameter : 6.0

x inside diameter: 3.0 x length mm : 600

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values _____

BEGINNING OF DELIVERY

Test pressure bar : 26.0 Tolerance bar : + 1.0

Prestroke mm : 3.00 Tolerance mm : + 0.05

Check

tolerance mm : \leftarrow 0.10

Rack travel in mm : 10.50 Tolerance mm : + 1.50

Firing order : 1-3-4-2

Phasing : 0-90-180-270

BASIC SETTING

Rated speed rpm : 1300

Rack travel in mm : 12.45
Tolerance mm : + 0.05

Del. quantity

cm3/1000 strokes : 99.0

cm3/1000 strokes : +- 1.0

3.0

Check tolerance cm3/1000s. : +-

Spreed

cm3/1000 strokes : 3.5

Check tolerance

cm3/1000\$. : 8.0

Rated speed rpm : 300

	cm3/1000 strokes : 3.5
Rack travel in mm: 8.30	Check tolerance
Tolerance mm : + 0.10 + Del. quantity +	cm3/1000s. : 8.0
cm3/1000 strokes : 12.0	
cm3/1000 strokes : +- 2.0 +	
Check tolerance	CONTROL LEVER
cm3/1000s. : +- 4.5 +-	control lever
cm3/1000 strokes : 5.5	position degree : 62.0
Check tolerance	tolerance degree : + 4.0
cm3/1000s. : 9.0	_
+	control lever
(B) SETTING OF INJECTION PUMP	position degree : 111.0 tolerance degree : +- 4.0
WITH GOVERNOR	toter ande degree 4.0
+	RATED SPEED
OUTDE OF EDITE TO A VE	44.70
GUIDE SLEEVE TRAVEL	rack travel mm : 11.40 Rated speed rpm : 1345
Rated speed rpm : 300	Tolerance 1/min : +- 5
guide sleeve	, , , , , , , , , , , , , , , , , , , ,
travel mm : 1.05	rack travel mm : 4.00
Tolerance mm : + 0.25 +	Rated speed rpm : 1515 Tolerance 1/min : +- 15
Rated speed rpm : 1500	Toterance Trimin : +- 13
guide sleeve	rack travel mm : 0.50
travel mm : 8.55	Tolerance mm : +- 0.50
Tolerance mm : + 0.05	Rated speed rpm : 1640
Rated speed rpm : 500	
guide sleeve	
travel mm : 2.55 +	LOW IDLE
Tolerance mm : + 0.25 +	
Rated speed rpm : 750	control lever
guide sleeve	position degree : 73.0
travel mm : 4.20 +	tolerance degree : +- 4.0
Tolerance mm : + 0.10	control lever
	position degree : 22.0
GUIDE SLEEVE POSITION	tolerance degree : + 4.0
+	
Rated speed rpm : 1500 +	Testing:
Rack travel in mm: 16.50	Rated speed rpm : 300
Tolerance mm : + 1.30 +	rack travel mm : 8.30
+	Tolerance mm : +- 0.10
FULL LOAD DELIVERY AT FULL LOAD STOP	Rated speed rpm : 100
FOLL LOAD DELIVERY AT FOLE LOAD STOP	Rated speed (pin : 100
Rated speed rpm : 1300	CRT mm min. : > 10.20
Aneroid pressure +	
hPa : 700 +	Rated speed rpm : 415
Del. quantity + cm3/1000 strokes : 99.0 +	
cm3/1000 strokes : + 1.0 +	TORQUE CONTROL
Check tolerance	
cm3/1000s. : +- 3.0 +	Rated speed rpm : 1300 rack travel mm : 12.45
Spreed +	rack cravet mm : 12.43

Tolerance man	: ← 0.05	+ cm3/1000 strokes : 5.0
		+ Check tolerance
Rated speed rpm	: 800	- cm3/1000s. : 8.0
rack travel mm	: 12.85	+
rack travel mm Tolerance mm	: ← 0.05	+ Aneroid pressure
		+ hPa : -
Rated speed rpm	: 1050	Rated speed rpm : 500
rack travel mm	12 45	+ Del. quantity
Talanasa am		
Tolerance mm	: ← 0.05	+ cm3/1000 strokes : 45.0
		cm3/1000 strokes : +- 1.0
		Check tolerance cm3/1000s. : +- 3.0
ANEROID/ALTITUDE		+ cm3/1000s. : +- 3.0
COMPENSATOR TEST	•	+ Spreed
		+ cm3/1000 strokes : 3.5
		+ Check tolerance
CETTAIC		
SETTING		+ cm3/1000s. : 8.0
~	500	†
Rated speed rpm Pressure hPa	: 500	
Pressure hPa	: 700	+ BREAKAWAY
rack travel mm	: 12.45	}
Tolerance mm	: +- 0.05	
TOTAL MAIN		Rack travel in mm: 11.40
MEACHINEMENT		Rated speed rpm : 1345
MEASUREMENT		
		+ Tolerance 1/min : + 5
Pressure hPa	: -	†
Rated speed rpm	: 500	+
,		
Rated speed rpm	• 500	+ STARTING FUEL DELIVERY
nated speed i piii	. 300	
Pressure hPa	: 200	Rated speed rpm : 100
		nated speed ipin : 100
rack travel mm		rack travel mm : 13.70 Tolerance mm : +- 0.10
Tolerance mm	: +- 0.05	+ Tolerance mm : +- U.10
		+ Del. quantity
Pressure hPa	: 400	+ cm3/1000 strokes : 75.0
rack travel mm		+ cm3/1000 strokes : + 7.5
Tolerance mm		Check tolerance
Toterance min	. + 0.10	- cm3/1000s. : + 10.0
		T (1157 10005 +- 10.0
	·	
START CUT-OUT		<u>†</u>
		†
Rated speed rpm		
Rated speed rpm	: < 250	+ LOW IDLE
·		+
Check		+ Rated speed rpm : 300
speed 1/min	: > 80	Del. quantity
Check	50	cm3/1000 strokes : 12.0
speed 1/min	: < 260	+ cm3/1000 strokes : +- 2.0
		+ Check tolerance
		+ cm3/1000s. : +- 4.5
FUEL DELIVERY CHA	ARACTERISTICS	+ Spreed
	_ ·	+ cm3/1000 strokes : 5.5
Aneroid pressure		+ Check tolerance
	: 700	cm3/1000s. : 9.0
hPa		T (m3/1000) 7.0
Rated speed rom	: 800	Ť
Del. quantity		†
cm3/1000 strokes	: 95.0	+
cm3/1000 strokes		+
Check tolerance		
	/ 0	1
cm3/1000s.	: +- 4.0	T Food of head amondfileshing about
Spreed		+ End of test specification sheet



Note remarks

Refer to Service Info for test and adjustment instructions.
See microcard(s) W400/...

Edition : 11.11.96 Test oil : ISO 4113

Combination No. : 9 400 085 395

Injection pump

Pump designation : PES6A95D41ORS2886 EP type number : 9 400 084 039

Governor

Governer design. : RQV300...1300AB1312L

Governer no. : 9 420 080 391

Cust. part No. : 0260749702

Customer-spec. information

Customer : MBB_

Motor : OM 366LA/EURO I

Power KW : 170.0

TEST BENCH REQUIREMENTS

Inlet line : 4.1

Test oil inlet

temp. °C : 40
Tolerance °C : +- 2.0

Overflow valve : 1 419 992 198

Inlet press. bar : 1.5

Test nozzle holde

assembly : 0 681 343 009

Opening pressure

bar : 173.5 Tolerance bar : + 1.5

Test Lines : 1 680 750 015

Outside diameter : 6.0

x inside diameter: 3.0 x length mm : 600

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values _____

BEGINNING OF DELIVERY

Test pressure bar : 26.0 Tolerance bar : + 1.0

Prestroke mm : 3.00
Tolerance mm : + 0.05
Check

tolerance mm : + 0.10

Rack travel in mm : 10.50 Tolerance mm : + 1.50

Firing order : 1-5-3-6-2-

: 4

Phasing : 0-60-120-180-240

: -300

BASIC SETTING

Rated speed rpm : 1300

Rack travel in mm : 12.25 Tolerance mm : +- 0.05

Doi guantitu

Del. quantity cm3/1000 strokes : 109.0

cm3/1000 strokes : +- 1.0

Check tolerance cm3/1000s. : +- 3.0

Spreed

cm3/1000 strokes : 3.5

Check tolerance

Rated speed rpm : 300	- Check tolerance
Mateu Speed (pm : 500	cm3/1000s. : + 3.0
-	Spreed
Rack travel in mm: 7.50	cm3/1000 strokes : 3.5
Tolerance mm : + 0.10	Check tolerance
Del. quantity	cm3/1000s. : 8.0
cm3/1000 strokes : 16.5	-
cm3/1000 strokes : + 2.0	-
Check tolerance	
Check tolerance cm3/1000s. : + 4.5	- CONTROL LEVER
Spreed	-
cm3/1000 strokes : 5.5	control lever
Check tolerance	- position degree : 60.0
cm3/1000s. : 9.0	tolerance degree : +- 4.0
•	
45)	control lever
(B) SETTING OF INJECTION PUMP	position degree : 110.0
WITH GOVERNOR	tolerance degree : +- 4.0
· · · · · · · · · · · · · · · · · · ·	DATEN CREEN
GUIDE SLEEVE TRAVEL	RATED SPEED
GOTINE SPEEKE LUMAER	rack travel mm : 11.20
Rated speed rpm : 300	Rated speed rpm : 1350
guide sleeve	Tolerance 1/min : +- 5
travel mm : 1.05	- Total and Dimini
Tolerance mm : + 0.25	rack travel mm : 4.00
	Rated speed rpm : 1515
Rated speed rpm : 1500	- Tolerance 1/min : +- 15
guide sleeve	
travel mm : 8.55	rack travel mm : 0.50
Tolerance mm : + 0.05	- Tolerance mm : +- 0.50
4	- Rated speed rpm : 1650
Rated speed rpm : 500	_
guide sleeve	•
travel mm : 2.55	
Tolerance mm : +- 0.25	- LOW IDLE
D. A. J. D. J. J. D. J. J. J. J. J. J. J. J. J. J. J. J. J.	-
Rated speed rpm : 750	- - control lever
guide sleeve travel mm : 4.20	- control lever - position degree : 69.0
Tolerance mm : + 0.10	- tolerance degree : +- 4.0
Toterance man	- total disc dagital
	- control lever
GUIDE SLEEVE POSITION	- position degree : 20.0
	- tolerance degree : +- 4.0
Rated speed rpm : 1500	•
· · · · · · · · · · · · · · · · · · ·	- Testing:
Rack travel in mm: 16.50	•
Tolerance mm : + 1.30	- Rated speed rpm : 300 - rack travel mm : 7.50 - Tolerance mm : +- 0.10
†	- rack travel mm : 7.50
	- Tolerance mm : +- U.10
FULL LOAD DELIVERY AT FULL LOAD STOP	- 0.4.4 400
Data diamental man in 1700	- Rated speed rpm : 100
Rated speed rpm : 1300	- - CRT mm min. :> 8.80
Aneroid pressure	- CKI (MIR III III
TIPE : ICUU †	- - Rated speed rpm : 375
Aneroid pressure hPa : 1200 Del. quantity cm3/1000 strokes : 109.0	- Nateu Speed (piii . 3/3
cm3/1000 strokes : +- 1.0	
THE TOUR STROKES . FOR 1.0	TORQUE CONTROL
Т	TOTAGE CONTINUE

	+	Rated speed rpm	: 700
Rated speed rpm : 1300		Del. quantity	
rack travel mm : 12.2		cm3/1000 strokes	
Tolerance mm : + 0.0	⁷⁵	cm3/1000 strokes	
200	†	Check tolerance	
Rated speed rpm : 700	,,	cm3/1000s.	: ← 4.0
rack travel mm : 12.7 Tolerance mm : + 0.0		Spreed cm3/1000 strokes	: 5.0
Tolerance mm : + 0.0	ľ	Check tolerance	: 5.0
Rated speed rpm : 950	I	cm3/1000s.	: 8.0
rack travel mm : 12.7	75 ↓	CIID7 10000.	. 0.0
Tolerance mm : + 0.0	-	Aneroid pressure	
	+	hPa	: 1200
Rated speed rpm : 1240		Rated speed rpm	: 950
rack travel mm : 12.2		Del. quantity	
Tolerance mm : +- 0.0	¹⁵ +	cm3/1000 strokes	
	†	cm3/1000 strokes	
ANEDOTO (A) TITUDE		Check tolerance cm3/1000s.	: +- 4.0
ANEROID/ALTITUDE COMPENSATOR TEST	I	Spreed	: +- 4.0
CONFESSORIOR TEST	I	cm3/1000 strokes	: 5.0
	1	Check tolerance	. 2.0
SETTING	∔	cm3/1000s.	: 8.0
	+		
Rated speed rpm : 500	+	Aneroid pressure	
Pressure hPa : 1200	+	hPa	: -
rack travel mm : 12.7		Rated speed rpm	: 500
Tolerance mm : +- 0.0	J5 †	Del. quantity	
MEACUIDEMENT	†	cm3/1000 strokes cm3/1000 strokes	
MEASUREMENT	Ī	Check tolerance	. — 1.0
Pressure hPa : -	I	cm3/1000s.	: ← 3.0
Rated speed rpm : 500	1	Spreed	
	1	cm3/1000 strokes	: 3.5
Rated speed rpm : 500	+	Check tolerance	
	+	cm3/1000s.	: 8.0
Pressure hPa : 660	_ +		
rack travel mm : 2.4		DDEALALIAN	
Tolerance mm : \leftarrow 0.1	'' †	BREAKAWAY	
Pressure hPa : 410	Ī		
rack travel mm : 1.3	ss I	Rack travel in mm	11.20
Tolerance mm : +- 0.0		Rated speed rpm	
	+	Tolerance 1/min	
	 +		
START CUT-OUT	+		
Saturdament and Africa	,	CTARTING FUEL NEL	TUEDY
Rated speed rpm : > 10 Rated speed rpm : < 22		STARTING FUEL DEL	TVERT
Rated speed rpm : < 22	I	Rated speed rpm	: 100
Check	1	rack travel mm	
	io ‡	Tolerance mm	: + 0.10
Check	+	Del. quantity	
speed 1/min : < 24	o +	cm3/1000 strokes	
	+	cm3/1000 strokes	:
	+	Check tolerance	- 1 10 0
FUEL DELIVERY CHARACTERISTI	cs †	cm3/1000s.	: ← 10.0
Approved processes	†		
Aneroid pressure : 1200	I		
iira . 1200	т		

Rated speed rpm : 300

Del. quantity

cm3/1000 strokes : 16.5

cm3/1000 strokes : + 2.0

Check tolerance

cm3/1000s. : + 4.5

Spreed

cm3/1000 strokes : 5.5

Check tolerance

cm3/1000s. : 9.0

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

Edition : 11.11.96 Test oil : ISO 4113

Combination No. : 9 400 085 396

Injection pump

Pump designation : PES6A95D41DRS2886 EP type number : 9 400 084 039

Governor

Governer design. : RQV300...1300AB1312L

Governer no. : 9 420 080 391

Cust. part No. : 0260749602

Customer—spec. information

Customer : MBB

Motor : OM 366LA/EURO I

Power KW : 170.0

TEST BENCH REQUIREMENTS

Inlet line : 4.1

Test oil inlet

temp. °C : 40
Tolerance °C : +- 2.0

Overflow valve : 1 419 992 198

Inlet press. bar : 1.5

Test nozzle holde

assembly : 0 681 343 009

Opening pressure

bar : 173.5 Tolerance bar : +- 1.5

Test Lines : 1 680 750 015

Outside diameter : 6.0

x inside diameter: 3.0 x length mm : 600

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values _____

BEGINNING OF DELIVERY

Test pressure bar : 26.0 Tolerance bar : + 1.0

Check

tolerance mm : + 0.10

Rack travel in mm : 10.50 Tolerance mm : + 1.50

Firing order : 1-5-3-6-2-

: 4

Phasing : 0-60-120-180-240

: -300

BASIC SETTING

Rated speed rpm : 1300

Rack travel in mm : 12.25 Tolerance mm : +- 0.05

Del. quantity

cm3/1000 strokes : 109.0

cm3/1000 strokes : +- 1.0

Check tolerance

cm3/1000s. : +- 3.0

Spreed

cm3/1000 strokes : 3.5

Check tolerance

cm3/1000s. : 8.0

Rated speed rpm : 300	+ Check tolerance + cm3/1000s. : +- 3.0 + Spreed
Rack travel in mm: 7.50	- cm3/1000 strokes : 3.5
Tolerance mm : +- 0.10	Check tolerance
Del. quantity	- cm3/1000s. : 8.0
cm3/1000 strokes : 16.5	†
cm3/1000 strokes : +- 2.0	+
Check tolerance	
cm3/1000s. : +- 4.5	+ CONTROL LEVER
Spreed	+
cm3/1000 strokes : 5.5	control lever
Check tolerance	position degree : 60.0
cm3/1000s. : 9.0	tolerance degree : +- 4.0
. ,	L cotte and degree . The tro
	control lever
(D) CETTAIN OF THE ESTAND NUMB	
(B) SETTING OF INJECTION PUMP	position degree : 110.0
WITH GOVERNOR	tolerance degree : +- 4.0
•	†
	RATED SPEED
GUIDE SLEEVE TRAVEL	+
	rack travel mm : 11.20
Rated speed rpm : 300	Rated speed rpm : 1350
guide sleeve	Tolerance 1/min : + 5
travel mm : 1.05	
Tolerance mm : + 0.25	rack travel mm : 4.00
Toterance inii . +- 0.25	Detect areas areas 1515
4500	Rated speed rpm : 1515 Tolerance 1/min : +- 15
Rated speed rpm : 1500	Tolerance 1/min : + 15
guide sleeve travel mm : 8.55	†
travel mm : 8.55	rack travel mm : 0.50
Tolerance mm : + 0.05	Tolerance mm : +- 0.50
	Rated speed rpm : 1650
Rated speed rpm : 500	<u> </u>
guide sleeve	1
+navel mm . 2.55	
Tolerance mm : + 0.25	LOW IDLE
roterance man 0.25	T LOW IDEE
D-A-1	T
Rated speed rpm : 750	
guide sleeve	control lever
travel mm : 4.20	position degree : 69.0
Tolerance mm : + 0.10	tolerance degree : +- 4.0
•	†
	tontrol lever
GUIDE SLEEVE POSITION -	position degree : 20.0
-	tolerance degree : +- 4.0
Rated speed rpm : 1500	_
The state of the s	Testing:
Rack travel in mm: 16.50	1
Tolerance mm : +- 1.30	Rated speed rpm : 300
roterance mm : - 1.50	rack travel mm : 7.50
•	Talanana - 0.40
	Tolerance mm : + 0.10
FULL LOAD DELIVERY AT FULL LOAD STOP	† ·
	Rated speed rpm : 100
Rated speed rpm : 1300 -	
Aneroid pressure -	CRT mm min. :> 8.80
hPa : 1200	
Del. quantity	Rated speed rpm : 375
cm3/1000 strokes : 109.0	
cm3/1000 strokes : + 1.0	
CHID/ 1000 SELONGS	TORQUE CONTROL
7	L LOUGOF COULUCE

		+ Rated speed rpm : 700
Rated speed rpm	: 1300	+ Rated speed rpm : 700 + Del. quantity
rack travel mm	: 12.25	- cm3/1000 strokes : 111.0
Tolerance mm	: + 0.05	+ cm3/1000 strokes : + 2.0
		+ Check tolerance
Rated speed rpm	: 700	+ cm3/1000s. : + 4.0
rack travel mm		Spreed
Tolerance mm	: +- 0.05	+ cm3/1000 strokes : 5.0
		+ Check tolerance
Rated speed rpm	: 950	+ cm3/1000s. : 8.0
rack travel mm	: 12.75	†
Tolerance mm	: +- 0.05	+ Aneroid pressure
Data dan ana adam	4240	+ hPa : 1200
Rated speed rpm		+ Rated speed rpm : 950
rack travel mm	: 12.25 : +- 0.05	+ Del. quantity + cm3/1000 strokes : 111.5
Tolerance mm	: +- 0.05	+ cm3/1000 strokes : 111.5 + cm3/1000 strokes : + 2.0
ANEROID/ALTITUDE		+ cm3/1000s. : +- 4.0
COMPENSATOR TEST		+ Spreed
TOTAL ENGINEERING		- cm3/1000 strokes : 5.0
		+ Check tolerance
SETTING		$\frac{1}{2}$ cm3/1000s. : 8.0
		}
Rated speed rpm	: 500	+ Aneroid pressure
Pressure hPa	: 1200	+ hPa :
rack travel mm	: 12.75	+ Rated speed rpm : 500
Tolerance mm	: ← 0.05	+ Del. quantity
MEAGUDEMENT		+ cm3/1000 strokes : 54.0
MEASUREMENT		+ cm3/1000 strokes : + 1.0
Pressure hPa	•	+ Check tolerance + cm3/1000s. : +- 3.0
Rated speed rpm	500	+ Spreed
hated speed ipin	. 200	+ cm3/1000 strokes : 3.5
Rated speed rpm	: 500	+ Check tolerance
matea opeca i piii	. , , ,	+ cm3/1000s. : 8.0
Pressure hPa	: 660	+
rack travel mm	: 2.40	<u> </u>
Tolerance mm	: +- 0.10	+ BREAKAWAY
		†
Pressure hPa	: 410	11 20
rack travel mm	: 1.35	Rack travel in mm: 11.20
Tolerance mm	: +- 0.05	+ Rated speed rpm : 1350 + Tolerance 1/min : +- 5
START CUT-OUT		<u> </u>
Rated speed rpm	: > 100	The starting fuel delivery
Rated speed rpm	: < 220	+
		Rated speed rpm : 100
Check		rack travel mm : 15.00
speed 1/min	: > 80	Tolerance mm : + G.10
Check		+ Del. quantity
speed 1/min	: < 240	+ cm3/1000 strokes : 108.5 + cm3/1000 strokes : +- 7.5
		+ cm3/1000 strokes : +- 7.5 + Check tolerance
FUEL DELIVERY CHA	RACTERISTICS	
I DEL DELIVERI CHA	WALTUTOLICA	- 10.0
Aneroid pressure		
hPa	: 1200	
- -	-	•

Rated speed rpm : 300
Del. quantity
cm3/1000 strokes : 16.5
cm3/1000 strokes : + 2.0
Check tolerance
cm3/1000s. : + 4.5
Spreed
cm3/1000 strokes : 5.5
Check tolerance
cm3/1000s. : 9.0

Note remarks

Refer to Service Info for test and adjustment instructions.
See microcard(s) W400/...

Edition : 08.11.96 Test oil : ISO 4113

Combination No. : 9 400 087 477

Injection pump

Pump designation : PES6P120A720RS3256

: -2

EP type number : 9 400 087 080

Governor

Governer design. : RQV350...1300PA1098

Governer no. : 9 420 080 353

Cust. part No. : 0240747202

Customer—spec. information Customer : MBB

Motor : 0M 366 LA Power KW : 125.1

TEST BENCH REQUIREMENTS

Inlet line : 4.1

Test oil inlet

temp. °C : 40
Tolerance °C : +- 2.0

Overflow valve : 1 417 413 025

Inlet press. bar : 1.5

Test nozzle holde

assembly : 1 688 901 019

Opening pressure

bar : 208.5 Tolerance bar : + 1.5

Test Lines : 1 680 750 075

Outside diameter : 8.0

x inside diameter: 3.0 x length mm : 1000

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values ____

BEGINNING OF DELIVERY

Test pressure bar : 26.0 Tolerance bar : + 1.0

Prestroke mm : 3.05 Tolerance mm : + 0.05

Check

tolerance mm : \leftarrow 0.10

Rack travel in mm : 20.50 Tolerance mm : + 0.50

Firing order : 1-5-3-6-2-

: 4

Phasing : 0-60-120-180-240

: -300

BASIC SETTING

Rated speed rpm : 1300

Rack travel in mm : 10.80 Tolerance mm : + 0.10

Tolerance mm : + 0.1

Del. quantity cm3/1000 strokes : 141.0

cm3/1000 strokes : +- 1.0

Check tolerance

cm3/1000s. : +- 4.0

Spreed

cm3/1000 strokes : 5.0

Check tolerance cm3/1000s. 9.0

Rated speed rpm	: 350	+ Aneroid pressure	
nacea apeca i pin	. 330	+ hPa	: 1200
Rack travel in mm	: 7.65	+ Del. quantity + cm3/1000 strokes	: 141.0
Tolerance mm	: +- 0.15	+ cm3/1000 strokes	
Del. quantity		Check tolerance	
cm3/1000 strokes		+ cm3/1000s. + Spreed	: +- 4.0
Check tolerance	. 4 3.0	cm3/1000 strokes	: 5.0
cm3/1000s.	: +- 6.0	+ Check tolerance	0.0
Spreed cm3/1000 strokes	: 8.0	t cm3/1000s.	: 9.0
Check tolerance		+	
cm3/1000s.	: 12.0	CONTROL LEUED	
		CONTROL LEVER	
(B) SETTING OF IN	JECTION PUMP	+ control lever	4.0.0
WITH GOVERNOR		<pre>position degree tolerance degree</pre>	
		+ total and degree	4.0
GUIDE SLEEVE TRAV	EL	+ RATED SPEED	
Rated speed rpm	: 1350	+ rack travel mm	
guide sleeve travel mm	: 8.50	+ Rated speed rpm + Tolerance 1/min	
Tolerance mm	: + 0.10	+	
Bakad anada man	. 4400	+ rack travel mm	: 4.00
Rated speed rpm guide sleeve	: 1100	+ Rated speed rpm + Tolerance 1/min	
travel mm	: 6.45	+	
Tolerance mm	: + 0.25	+ rack travel num + Tolerance num	: 0.50 : + 0.50
Rated speed rpm	: 350	+ Rated speed rpm	
guide sleeve		+	
travel mm Tolerance mm	: 1.25 : + 0.25	İ	
TOTEL GLICE HAN		+ LOW IDLE	
Rated speed rpm	: 650	+	
guide sleeve travel mm	: 4.15	t control lever	
Tolerance mm	: + 0.25	<pre>position degree</pre>	
Data dama adama	: 1460	tolerance degree	: +- 4.0
Rated speed rpm guide sleeve	: 1460	Testing:	
travel mm	: 9.55	+	
Tolerance mm	: + 0.25	+ Rated speed rpm + rack travel mm	
		Tolerance mm	
GUIDE SLEEVE POSIT	TION	D. A. J	250
Rated speed rpm	• 1360	+ Rated speed rpm	: 250
•		+ CRT mm min.	: > 9.50
Rack travel in mm		Pated aroad are	. 775
Tolerance mm	; 1.30	Rated speed rpm	: 375
FULL LOAD DELIVERY	AT FULL LOAD STOP	TORQUE CONTROL	
Rated speed rpm	: 1300	Rated speed rpm	: 1300
, ,		rack travel mm	: 10.80

Tolerance mma Rated speed rpm rack travel mm Tolerance mma Rated speed rpm rack travel mma Tolerance mma	: 800 : 10.80 : + 0.10	Check tolerand cm3/1000s. Aneroid pressum hPa Rated speed research	: 12.0 ure : – om : 1000
ANEROID/ALTITUDE COMPENSATOR TEST			kes : + 1.5 ce : + 4.5 kes : 2.0
SETTING		cm3/1000s.	
Rated speed rpm Pressure hPa rack travel mm Tolerance mm MEASUREMENT	: 1200 : 10.80	Aneroid pressum hPa Rated speed reportity cm3/1000 stroken	: – 500:
Pressure hPa	: -	Check tolerand	: + 4.0
Rated speed rpm		+ Spreed + cm3/1000 strok	kes : 5.0
Rated speed rpm Pressure hPa	: 420	+ Check tolerand + cm3/1000s. +	
rack travel mm Tolerance mm	: + 0.10	BREAKAWAY	
Pressure hPa rack travel mm Tolerance mm	: 0.40	+ Rated speed rp	n.mm: 9.70 om: 1345 in:+- 5
START CUT-OUT			
Rated speed rpm Rated speed rpm		STARTING FUEL	
Check speed 1/min Check speed 1/min	: > 80 : < 290	Rated speed rp Del. quantity cm3/1000 strok cm3/1000 strok Check tolerand cm3/1000s.	kes : 100.0 kes : +- 10.0
FUEL DELIVERY CHA	ARACTERISTICS	<u> </u>	
Aneroid pressure hPa Rated speed rpm Del. quantity cm3/1000 strokes cm3/1000 strokes Check tolerance cm3/1000s. Spreed	: 119.0	LOW IDLE Rated speed rp Del. quantity cm3/1000 strok cm3/1000 strok Check tolerand cm3/1000s.	tes : 17.0 tes : + 3.0

Spreed

cm3/1000 strokes : 8.0

Check tolerance cm3/1000s. : 12.0

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

: 11.11.96 Edition Test oil : ISO 4113

Combination No. : 9 400 085 295

Injection pump

Pump designation : PES4A90D410RS2666 EP type number : 0 410 894 029

Governor

Governer design. : RQV300...1400AB1065

: -5L

: 0 420 212 169 Governer no.

Cust. part No. : 016 074 87 02

Customer-spec. information : M88 Customer : 0M364 Motor : 66.0 Power KW

TEST BENCH REQUIREMENTS

Inlet line : 4.1

Test oil inlet

temp. °C Tolerance °C : +- 2.0

Overflow valve : 1 419 992 198

Inlet press. bar : 1.5

Test nozzle holde

: 0 681 343 009 assembly

Opening pressure

173.5 bar Tolerance bar : + 1.5

Test Lines : 1 680 750 015

6.0 Outside diameter :

x inside diameter : 3.0 x length mm : 600

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values _____

BEGINNING OF DELIVERY

Test pressure bar : 26.0 Tolerance bar : + 1.0

Prestroke mm : +-2.30 : +- 0.05

Check

tolerance mm : +- 0.10

Rack travel in mm: 10.50 : +- 1.50 Tolerance mm

: 1-3-4-2 Firing order

: 0-90-180-270 Phasing

BASIC SETTING

Rated speed rpm : 1400

Rack travel in mm : 10.95 Tolerance mm : **←** 0.05

Del. quantity

cm3/1000 strokes : 63.5

cm3/1000 strokes : +- 0.5

Check tolerance

cm3/1000s. : +- 2.5

Spreed

cm3/1000 strokes : 3.0

Check tolerance

: 7.0 cm3/1000s.

Rated speed rpm : 300

L03

Ŧ	cm3/1000 strokes : 3.0
Rack travel in mm: 8.70	Check tolerance
Tolerance mm : + 0.10	cm3/1000s. : 7.0
Dei. quantity + cm3/1000 strokes : 10.0 +	
cm3/1000 strokes : +- 2.0 +	
Check tolerance	CONTROL LEVER
cm3/1000s. : +- 4.0	
Spreed	control lever
cm3/1000 strokes : 4.5	position degree : 62.0
Check tolerance cm3/1000s. : 7.0	tolerance degree : +- 4.0
Cm5/10005. : 7.0	control lever
1	position degree : 111.0
(B) SETTING OF INJECTION PUMP	tolerance degree : +- 4.0
WITH GOVERNOR +	
†	RATED SPEED
GUIDE SLEEVE TRAVEL	rack travel mm : 9.90
TOTAL OFFICE WASTE	Rated speed rpm : 1455
Rated speed rpm : 300	Tolerance 1/min : + 5
guide sleeve	
travel mm : 1.05	rack travel mm : 4.00
Tolerance mm : + 0.25	Rated speed rpm : 1575
Rated speed rpm : 1500	Tolerance 1/min : +- 15
guide sleeve	rack travel mm : 0.50
travel mm : 8.55	Tolerance mm : +- 0.50
Tolerance mm : +- 0.05	Rated speed rpm : 1700
+	
Rated speed rpm : 500	
guide sleeve + travel mm : 2.55 +	LOW IDLE
Tolerance mm : + 0.25	EOM IDEE
Total unite man	
Rated speed rpm : 750	control lever
guide sleeve +	position degree : 72.0
travel mm : 4.20	tolerance degree : +- 4.0
Tolerance ≈ 100 : $+0.10$	
	control lever
	control lever position degree : 23.0
GUIDE SLEEVE POSITION	control lever position degree : 23.0 tolerance degree : +- 4.0
+	position degree : 23.0 tolerance degree : + 4.0
GUIDE SLEEVE POSITION Rated speed rpm : 1500	position degree : 23.0
Rated speed rpm : 1500	position degree : 23.0 tolerance degree : + 4.0 Testing:
Rated speed rpm : 1500 + Rack travel in mm : 16.50 + Rack travel in mm : 16.50	position degree : 23.0 tolerance degree : + 4.0
Rated speed rpm : 1500	position degree : 23.0 tolerance degree : + 4.0 Testing: Rated speed rpm : 300
Rated speed rpm : 1500 Rack travel in mm : 16.50 Tolerance mm : + 1.30	position degree : 23.0 tolerance degree : + 4.0 Testing: Rated speed rpm : 300 rack travel mm : 8.70 Tolerance mm : + 0.10
Rated speed rpm : 1500 + Rack travel in mm : 16.50 + Rack travel in mm : 16.50	position degree : 23.0 tolerance degree : + 4.0 Testing: Rated speed rpm : 300 rack travel mm : 8.70
Rated speed rpm : 1500 Rack travel in mm : 16.50 Tolerance mm : + 1.30 FULL LOAD DELIVERY AT FULL LOAD STOP	position degree : 23.0 tolerance degree : + 4.0 Testing: Rated speed rpm : 300 rack travel mm : 8.70 Tolerance mm : + 0.10 Rated speed rpm : 100
Rated speed rpm : 1500 Rack travel in mm : 16.50 Tolerance mm : + 1.30 FULL LOAD DELIVERY AT FULL LOAD STOP Rated speed rpm : 1400	position degree : 23.0 tolerance degree : + 4.0 Testing: Rated speed rpm : 300 rack travel mm : 8.70 Tolerance mm : + 0.10
Rated speed rpm : 1500 Rack travel in mm : 16.50 Tolerance mm : + 1.30 FULL LOAD DELIVERY AT FULL LOAD STOP	position degree : 23.0 tolerance degree : + 4.0 Testing: Rated speed rpm : 300 rack travel mm : 8.70 Tolerance mm : + 0.10 Rated speed rpm : 100
Rated speed rpm : 1500 Rack travel in mm : 16.50 Tolerance mm : + 1.30 FULL LOAD DELIVERY AT FULL LOAD STOP Rated speed rpm : 1400 Aneroid pressure hPa : - Del. quantity	position degree : 23.0 tolerance degree : + 4.0 Testing: Rated speed rpm : 300 rack travel mm : 8.70 Tolerance mm : + 0.10 Rated speed rpm : 100 CRT mm min. : > 10.00
Rated speed rpm : 1500 Rack travel in mm : 16.50 Tolerance mm : + 1.30 FULL LOAD DELIVERY AT FULL LOAD STOP Rated speed rpm : 1400 Aneroid pressure hPa : - Del. quantity cm3/1000 strokes : 63.5	position degree : 23.0 tolerance degree : + 4.0 Testing: Rated speed rpm : 300 rack travel mm : 8.70 Tolerance mm : + 0.10 Rated speed rpm : 100 CRT mm min. : > 10.00 Rated speed rpm : 610
Rated speed rpm : 1500 Rack travel in mm : 16.50 Tolerance mm : + 1.30 FULL LOAD DELIVERY AT FULL LOAD STOP Rated speed rpm : 1400 Aneroid pressure hPa : - Del. quantity cm3/1000 strokes : 63.5 cm3/1000 strokes : + 0.5	position degree : 23.0 tolerance degree : + 4.0 Testing: Rated speed rpm : 300 rack travel mm : 8.70 Tolerance mm : + 0.10 Rated speed rpm : 100 CRT mm min. : > 10.00
Rated speed rpm : 1500 Rack travel in mm : 16.50 Tolerance mm : + 1.30 FULL LOAD DELIVERY AT FULL LOAD STOP Rated speed rpm : 1400 Aneroid pressure hPa : - Del. quantity cm3/1000 strokes : 63.5 cm3/1000 strokes : + 0.5 Check tolerance	position degree : 23.0 tolerance degree : + 4.0 Testing: Rated speed rpm : 300 rack travel mm : 8.70 Tolerance mm : + 0.10 Rated speed rpm : 100 CRT mm min. : > 10.00 Rated speed rpm : 610 TORQUE CONTROL
Rated speed rpm : 1500 Rack travel in mm : 16.50 Tolerance mm : + 1.30 FULL LOAD DELIVERY AT FULL LOAD STOP Rated speed rpm : 1400 Aneroid pressure hPa : - Del. quantity cm3/1000 strokes : 63.5 cm3/1000 strokes : + 0.5	position degree : 23.0 tolerance degree : + 4.0 Testing: Rated speed rpm : 300 rack travel mm : 8.70 Tolerance mm : + 0.10 Rated speed rpm : 100 CRT mm min. : > 10.00 Rated speed rpm : 610

Tolerance mm	: +- 0.05
Rated speed rpm rack travel mm Tolerance mm	: 800 : 12.25 : ← 0.05
Rated speed rpm rack travel mm Tolerance mm	
START CUT-OUT	
Rated speed rpm Rated speed rpm	: > 100 : < 220
Check speed 1/min	: > 80
Check speed 1/min	: < 240
FUEL DELIVERY CHA	
Aneroid pressure	
hPa Rated speed rpm	: - : 800
hPa Rated speed rpm Del. quantity cm3/1000 strokes cm3/1000 strokes	: - : 800 : 59.5 : + 1.5
hPa Rated speed rpm Del. quantity cm3/1000 strokes cm3/1000 strokes Check tolerance cm3/1000s.	: 59.5
hPa Rated speed rpm Del. quantity cm3/1000 strokes cm3/1000 strokes Check tolerance cm3/1000s. Spreed cm3/1000 strokes	: 59.5 : + 1.5
hPa Rated speed rpm Del. quantity cm3/1000 strokes cm3/1000 strokes Check tolerance cm3/1000s. Spreed	: 59.5 : + 1.5 : + 3.5
hPa Rated speed rpm Del. quantity cm3/1000 strokes cm3/1000 strokes Check tolerance cm3/1000s. Spreed cm3/1000 strokes Check tolerance cm3/1000s. Aneroid pressure hPa Rated speed rpm	: 59.5 : + 1.5 : + 3.5 : 4.0
hPa Rated speed rpm Del. quantity cm3/1000 strokes cm3/1000 strokes Check tolerance cm3/1000 strokes Check tolerance cm3/1000 strokes Check tolerance cm3/1000s. Aneroid pressure hPa Rated speed rpm Del. quantity cm3/1000 strokes cm3/1000 strokes	: 59.5 : + 1.5 : + 3.5 : 4.0 : 8.0
hPa Rated speed rpm Del. quantity cm3/1000 strokes cm3/1000 strokes Check tolerance cm3/1000s. Spreed cm3/1000 strokes Check tolerance cm3/1000s. Aneroid pressure hPa Rated speed rpm Del. quantity cm3/1000 strokes cm3/1000 strokes Check tolerance cm3/1000 strokes Check tolerance cm3/1000s.	: 59.5 : ← 1.5 : ← 3.5 : 4.0 : 8.0 : - : 1150 : 66.0
hPa Rated speed rpm Del. quantity cm3/1000 strokes cm3/1000 strokes Check tolerance cm3/1000s. Spreed cm3/1000 strokes Check tolerance cm3/1000s. Aneroid pressure hPa Rated speed rpm Del. quantity cm3/1000 strokes cm3/1000 strokes cm3/1000 strokes cm3/1000 strokes cm3/1000 strokes Check tolerance	: 59.5 : + 1.5 : + 3.5 : 4.0 : 8.0 : 1150 : 66.0 : + 1.5

STARTING FUEL DELIVERY

Rated speed rpm	:		100
rack travel mm	:		17.20
Tolerance mm	:	+-	0.20
Del. quantity			
cm3/1000 strokes	:		83.0
cm3/1000 strokes	:	+-	7.5
Check tolerance			
cm3/1000s.	:	+-	10.0

LOW IDLE

:	300	
: : +-	10.0 2.0	
: +-	4.0	
:	4.5	
:	7.0	
	: : +- : +- :	: 10.0 : + 2.0 : + 4.0 : 4.5

End of test specification sheet

Rack travel in mm : 9.90
Rated speed rpm : 1455
Tolerance 1/min : + 5

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

Edition : 11.11.96 Test oil : ISO 4113

Combination No. : 9 400 085 307

Injection pump

Pump designation : PES4A95D410RS2774 EP type number : 9 400 084 019

Governor

Governer design. : RQV300...1300AB1228

: -1L

Governer no. : 9 420 080 268

Cust. part No. : 018 074 50 02

Customer-spec. information
Customer : MBB
Motor : OM 364 A
Power KW : 85.0

TEST BENCH REQUIREMENTS

Inlet line : 4.1

Test oil inlet

temp. °C : 40
Tolerance °C : + 2.0

Overflow valve : 1 419 992 198

Inlet press, bar : 1.5

Test nozzle holde

assembly : 0 681 343 009

Opening pressure

bar : 173.5 Tolerance bar : + 1.5

Test lines : 1 680 750 015

Outside diameter : 6.0

x inside diameter: 3.0 x length mm : 600

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values ____

BEGINNING OF DELIVERY

Test pressure bar : 26.0 Tolerance bar : + 1.0

Prestroke mm : 3.25
Tolerance mm : + 0.05

Check

tolerance mm : +- 0.10

Rack travel in mm : 10.50 Tolerance mm : + 1.50

Firing order : 1-3-4-2

Phasing : 0-90-180-270

BASIC SETTING

Rated speed rpm : 1300

Rack travel in mm : 10.65 Tolerance mm : + 0.05

Del. quantity

cm3/1000 strokes : 91.0

cm3/1000 strokes : + 1.0

Check tolerance

cm3/1000s. : +- 3.0

Spreed

cm3/1000 strokes : 3.5

Check tolerance

cm3/1000s. : 8.0

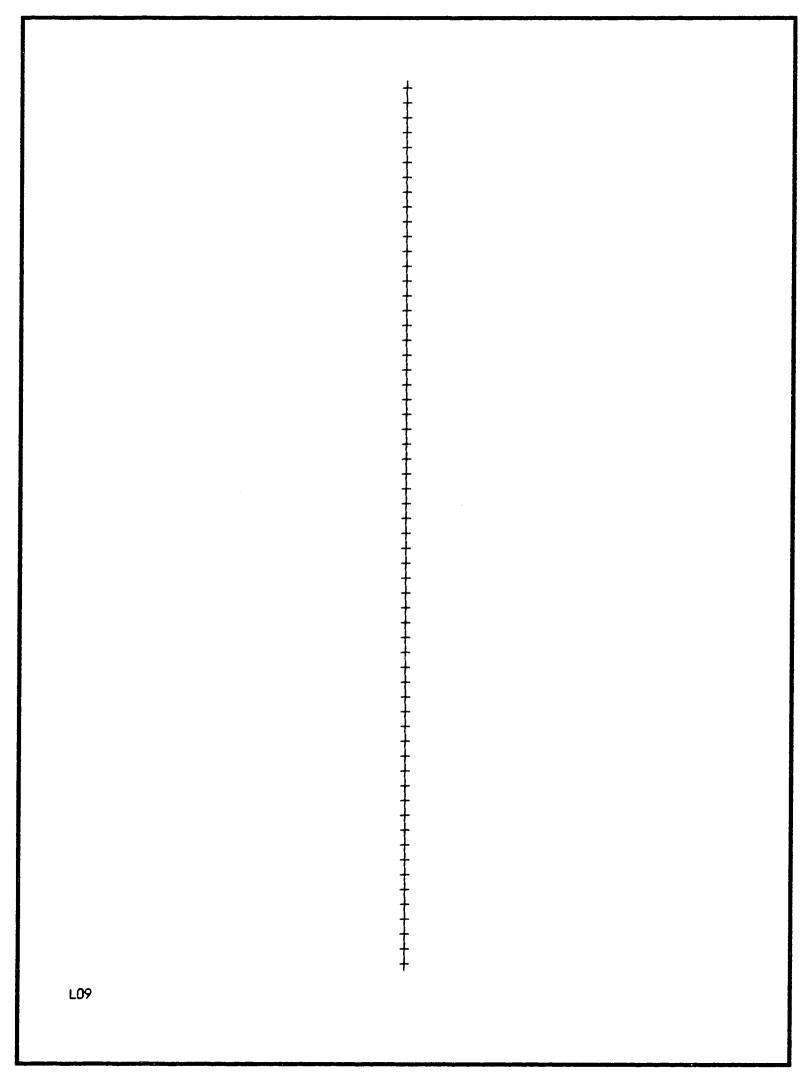
Rated speed rpm : 300

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	+ cm3/1000 strokes : 3.5
Rack travel in mm : 7.00	+ Check tolerance
Tolerance mm : + 0.10	+ cm3/1000s. : 8.0
Del. quantity	+
cm3/1000 strokes : 10.0	†
cm3/1000 strokes : +- 2.0 Check tolerance	CONTROL LEVER
cm3/1000s. : +- 4.5	I CONTROL LEVER
Spreed	+ control lever
cm3/1000 strokes : 5.5	position degree : 59.0
Check tolerance	+ tolerance degree : + 4.0
cm3/1000s. : 9.0	†
	control lever position degree : 108.0
(B) SETTING OF INJECTION PUMP	tolerance degree : + 4.0
HITH GOVERNOR	+
	+ RATED SPEED
	†
GUIDE SLEEVE TRAVEL	+ rack travel mm : 9.60
Rated speed rpm : 300	+ Rated speed rpm : 1365 + Tolerance 1/min : +- 5
guide sleeve	- Total ance Trimin
travel mm : 1.05	rack travel mm : 4.00
Tolerance mm : + 0.25	Rated speed rpm : 1490
A	+ Tolerance 1/min : +- 15
Rated speed rpm : 1500	+ rack travel mm : 0.50
guide sleeve travel mm : 8.55	+ Tolerance mm : +- 0.50
Tolerance mm : +- 0.05	Rated speed rpm : 1640
	+
Rated speed rpm : 500	+
guide sleeve	LOUVE
travel mm : 2.55 Tolerance mm : +- 0.25	+ LOW IDLE
toterante min	I
Rated speed rpm : 750	+ control lever
guide sleeve	position degree : 68.0
travel mm : 4.20	tolerance degree : +- 4.0
Tolerance mm : + 0.10	+ control lever
	position degree : 19.0
GUIDE SLEEVE POSITION	tolerance degree : +- 4.0
	+
Rated speed rpm : 1500	† Testing:
Rack travel in mm : 16.50	Rated speed rpm : 300
Tolerance mm : +~ 1.30	rack travel mm : 7.00
TOTAL MINISTER TOTAL	+ Tolerance mm : +- 0.10
	+
FULL LOAD DELIVERY AT FULL LOAD STOP	+ Rated speed rpm : 100
Dated around man 1 1700	+ CRT mm min. :> 8.00
Rated speed rpm : 1300 Aneroid pressure	T (K) mm min. : > 0.00
hPa : 700	Rated speed rpm : 485
Del. quantity	+
cm3/1000 strokes : 91.0	+
cm3/1000 strokes : + 1.0	+ TORQUE CONTROL
Check tolerance	Poésad speed ppp 1700
cm3/1000s. : +- 3.0	Rated speed rpm : 1300 rack travel mm : 10.65
Spreed	T I GOV CLOACE WILL . 10.00

Tolerance mm	: ← 0.05	+ cm3/1000 strokes : 5.0 + Check tolerance
Rated speed rpm	: 800	+ cm3/1000s. : 8.0
rack travel mm		T (1115) 10003
Tolerance mm	= -	T Apopoid procesure
roterance mm	: — 0.05	+ Aneroid pressure
Dadad annal san	. 1000	+ hPa : - Rated speed rpm : 500
Rated speed rpm		
rack travel mm	: 10.90	+ Del. quantity
Tolerance mm	: ← 0.10	+ cm3/1000 strokes : 53.0
		+ cm3/1000 strokes : + 1.0
***************************************		+ Check tolerance
ANEROID/ALTITUDE		+ cm3/1000s. : +- 3.0
COMPENSATOR TEST		+ Spreed
		+ cm3/1000 strokes : 3.5
		+ Check tolerance
SETTING		+ cm3/1000s. : 8.0
	500	†
Rated speed rpm		
Pressure hPa		+ BREAKAWAY
rack travel mm		†
Tolerance mm	: ← 0.05	†
		+ Rack travel in mm : 9.60
MEASUREMENT		+ Rated speed rpm : 1365
		+ Tolerance 1/min : +- 5
Pressure hPa	:	†
Rated speed rpm	: 500	†
Rated speed rpm	: 500	+ STARTING FUEL DELIVERY
		†
Pressure hPa	: 280	+ Rated speed rpm : 100
rack travel mm	: 0.45	rack travel mm : 13.00
Tolerance mm	: ← 0.05	+ Tolerance mm : +- 0.10
		+ Del. quantity
Pressure hPa	: 410	+ cm3/1000 strokes : 84.0
rack travel mm	: 1.40	+ cm3/1000 strokes : + 7.5
Tolerance mm	: 0.10	† Check tolerance
		+ cm3/1000s. : +- 10.0
		
START CUT-OUT		†
		†
Rated speed rpm	: > 100	<u> </u>
Rated speed rpm	: < 220	+ LOW IDLE
- *		† 2
Check		+ Rated speed rpm : 300
speed 1/min	: > 80	+ Del. quantity
Check		+ cm3/1000 strokes : 10.0
speed 1/min	: < 240	+ cm3/1000 strokes : $+$ 2.0
		† Check tolerance
		—— † cm3/1000s. : +- 4.5
FUEL DELIVERY CHA	MRACTERISTICS	+ Spreed
		+ cm3/1000 strokes : 5.5
Aneroid pressure	700	+ Check tolerance
hPa	: 700	+ cm3/1000s. : 9.0
Rated speed rpm	: 800	†
Del. quantity	A / A	†
cm3/1000 strokes	: 86.0	†
cm3/1000 strokes	: ← 2.0	†
Check tolerance		***************************************
cm3/1000s.	: +- 4.0	†
Spreed		+ End of test specification sheet

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Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

: 11.11.96 Edition Test oil : ISO 4113

Combination No. : 9 400 085 315

Injection pump

Pump designation : PES6A95D410RS2772 EP type number : 9 400 084 018

Governor

Governer design. : RQV300...1300AB1066

: -9L

: 9 420 080 282 Governer no.

Cust. part No. : 019 074 51 02

Customer-spec. information Customer : MB8 : OM 366 A Motor Power KW : 125.0

TEST BENCH REQUIREMENTS

Inlet line : 4.1

Test oil inlet

temp. °C : +- 2.0 Tolerance °C

Overflow valve : 1 419 992 198

Inlet press. bar : 1.5

Test nozzle holde

: 0 681 343 009 assembly

Opening pressure

: 173.5 : **←** 1.5 Tolerance bar

Test lines : 1 680 750 015

Outside diameter : 6.0

x inside diameter: 3.0 x length mm : 600

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values _____

BEGINNING OF DELIVERY

Test pressure bar : 26.0 Tolerance bar : + 1.0

Prestroke mm : 3.25 : **←** 0.05 Tolerance mm

Check

tolerance mm : +- 0.10

Rack travel in mm : 10.50 Tolerance mm : \leftarrow 1.50

Firing order : 1-5-3-6-2-

: 0-60-120-180-240 Phasing

: -300

BASIC SETTING

Rated speed rpm : 1300

Rack travel in mm: 10.45 Tolerance mm : +- 0.05

Del. quantity cm3/1000 strokes : 88.0

cm3/1000 strokes : +-

Check tolerance cm3/1000s. : +- 3.0

Spreed cm3/1000 strokes : 3.5

Check tolerance

8.0 cm3/1000s.

Rated speed rpm : 300	Check tolerance
+	cm3/1000s. : +- 3.0
+	Spreed
Rack travel in mm: 7.00	cm3/1000 strokes : 3.5
Tolerance mm : + 0.10	Check tolerance
Del. quantity	cm3/1000s. : 8.0
cm3/1000 strokes : 11.5	
cm3/1000 strokes : + 2.0	
Check tolerance	
cm3/1000s. : + 4.5	CONTROL LEVER
	CONTROL LEVER
Spreed	·
cm3/1000 strokes : 5.5	control lever
Check tolerance	position degree : 109.0
cm3/1000s. : 9.0	tolerance degree : +- 4.0
†	
+	RATED SPEED
(B) SETTING OF INJECTION PUMP	
WITH GOVERNOR +	rack travel mm : 9.40
+	Rated speed rpm : 1365
1	Tolerance 1/min : + 5
GUIDE SLEEVE TRAVEL	
4	rack travel mm : 4.00
Rated speed rpm : 300	Rated speed rpm : 1485
guide sleeve	Tolerance 1/min : +- 15
travel mm : 1.05	To cor direct trimities and the second secon
Tolerance mm : + 0.25	rack travel mm : 0.50
Total rational transfer of the state of the	Tolerance mm : + 0.50
7 1500	
Rated speed rpm : 1500	Rated speed rpm : 1650
guide sleeve	
travel mm : 8.55 +	
Tolerance mm : + 0.05 +	
+	LOW IDLE
Rated speed rpm : 500 +	LOW IDLE
Rated speed rpm : 500 + guide sleeve +	
Rated speed rpm : 500 - guide sleeve travel mm : 2.55	LOW IDLE
Rated speed rpm : 500 - guide sleeve	
Rated speed rpm : 500 guide sleeve travel mm : 2.55	control lever position degree : 68.0
Rated speed rpm : 500 guide sleeve travel mm : 2.55 Tolerance mm : + 0.25	control lever position degree : 68.0
Rated speed rpm : 500 guide sleeve travel mm : 2.55 Tolerance mm : + 0.25 Rated speed rpm : 750	control lever position degree : 68.0 tolerance degree : + 4.0
Rated speed rpm : 500 guide sleeve travel mm : 2.55 Tolerance mm : 750 Rated speed rpm : 750 guide sleeve	control lever position degree : 68.0
Rated speed rpm : 500 guide sleeve travel mm : 2.55 Tolerance mm : + 0.25 Rated speed rpm : 750 guide sleeve travel mm : 4.20	control lever position degree : 68.0 tolerance degree : + 4.0 Testing:
Rated speed rpm : 500 guide sleeve travel mm : 2.55 Tolerance mm : 750 Rated speed rpm : 750 guide sleeve	control lever position degree : 68.0 tolerance degree : + 4.0 Testing: Rated speed rpm : 300
Rated speed rpm : 500 guide sleeve travel mm : 2.55 Tolerance mm : + 0.25 Rated speed rpm : 750 guide sleeve travel mm : 4.20	control lever position degree : 68.0 tolerance degree : + 4.0 Testing: Rated speed rpm : 300
Rated speed rpm : 500 guide sleeve travel mm : 2.55 Tolerance mm : + 0.25 Rated speed rpm : 750 guide sleeve travel mm : 4.20 Tolerance mm : + 0.10	<pre>control lever position degree : 68.0 tolerance degree : +- 4.0 Testing: Rated speed rpm : 300</pre>
Rated speed rpm : 500 guide sleeve travel mm : 2.55 Tolerance mm : + 0.25 Rated speed rpm : 750 guide sleeve travel mm : 4.20	control lever position degree : 68.0 tolerance degree : + 4.0 Testing: Rated speed rpm : 300 rack travel mm : 7.00 Tolerance mm : + 0.10
Rated speed rpm : 500 guide sleeve travel mm : 2.55 Tolerance mm : + 0.25 Rated speed rpm : 750 guide sleeve travel mm : 4.20 Tolerance mm : + 0.10 GUIDE SLEEVE POSITION	control lever position degree : 68.0 tolerance degree : + 4.0 Testing: Rated speed rpm : 300
Rated speed rpm : 500 guide sleeve travel mm : 2.55 Tolerance mm : + 0.25 Rated speed rpm : 750 guide sleeve travel mm : 4.20 Tolerance mm : + 0.10	control lever position degree : 68.0 tolerance degree : + 4.0 Testing: Rated speed rpm : 300 rack travel mm : 7.00 Tolerance mm : + 0.10 Rated speed rpm : 100
Rated speed rpm : 500 guide sleeve travel mm : 2.55 Tolerance mm : 750 guide sleeve travel mm : 4.20 Tolerance mm : 4.20 GUIDE SLEEVE POSITION Rated speed rpm : 1500	control lever position degree : 68.0 tolerance degree : + 4.0 Testing: Rated speed rpm : 300 rack travel mm : 7.00 Tolerance mm : + 0.10
Rated speed rpm : 500 guide sleeve travel mm : 2.55 Tolerance mm : + 0.25 Rated speed rpm : 750 guide sleeve travel mm : 4.20 Tolerance mm : + 0.10 GUIDE SLEEVE POSITION Rated speed rpm : 1500 Rack travel in mm : 16.50	control lever position degree : 68.0 tolerance degree : + 4.0 Testing: Rated speed rpm : 300 rack travel mm : 7.00 Tolerance mm : + 0.10 Rated speed rpm : 100 CRT mm min. : > 8.00
Rated speed rpm : 500 guide sleeve travel mm : 2.55 Tolerance mm : 750 guide sleeve travel mm : 4.20 Tolerance mm : 4.20 GUIDE SLEEVE POSITION Rated speed rpm : 1500	control lever position degree : 68.0 tolerance degree : + 4.0 Testing: Rated speed rpm : 300 rack travel mm : 7.00 Tolerance mm : + 0.10 Rated speed rpm : 100
Rated speed rpm : 500 guide sleeve travel mm : 2.55 Tolerance mm : + 0.25 Rated speed rpm : 750 guide sleeve travel mm : 4.20 Tolerance mm : + 0.10 GUIDE SLEEVE POSITION Rated speed rpm : 1500 Rack travel in mm : 16.50	control lever position degree : 68.0 tolerance degree : + 4.0 Testing: Rated speed rpm : 300 rack travel mm : 7.00 Tolerance mm : + 0.10 Rated speed rpm : 100 CRT mm min. : > 8.00
Rated speed rpm : 500 guide sleeve travel mm : 2.55 Tolerance mm : + 0.25 Rated speed rpm : 750 guide sleeve travel mm : 4.20 Tolerance mm : + 0.10 GUIDE SLEEVE POSITION Rated speed rpm : 1500 Rack travel in mm : 16.50 Tolerance mm : + 1.30	control lever position degree : 68.0 tolerance degree : + 4.0 Testing: Rated speed rpm : 300 rack travel mm : 7.00 Tolerance mm : + 0.10 Rated speed rpm : 100 CRT mm min. :> 8.00 Rated speed rpm : 375
Rated speed rpm : 500 guide sleeve travel mm : 2.55 Tolerance mm : + 0.25 Rated speed rpm : 750 guide sleeve travel mm : 4.20 Tolerance mm : + 0.10 GUIDE SLEEVE POSITION Rated speed rpm : 1500 Rack travel in mm : 16.50	control lever position degree : 68.0 tolerance degree : + 4.0 Testing: Rated speed rpm : 300 rack travel mm : 7.00 Tolerance mm : + 0.10 Rated speed rpm : 100 CRT mm min. : > 8.00
Rated speed rpm : 500 guide sleeve travel mm : 2.55 Tolerance mm : + 0.25 Rated speed rpm : 750 guide sleeve travel mm : 4.20 Tolerance mm : + 0.10 GUIDE SLEEVE POSITION Rated speed rpm : 1500 Rack travel in mm : 16.50 Tolerance mm : + 1.30 FULL LOAD DELIVERY AT FULL LOAD STOP	control lever position degree : 68.0 tolerance degree : + 4.0 Testing: Rated speed rpm : 300 rack travel mm : 7.00 Tolerance mm : + 0.10 Rated speed rpm : 100 CRT mm min. : > 8.00 Rated speed rpm : 375 TORQUE CONTROL
Rated speed rpm : 500 guide sleeve travel mm : 2.55 Tolerance mm : + 0.25 Rated speed rpm : 750 guide sleeve travel mm : 4.20 Tolerance mm : + 0.10 GUIDE SLEEVE POSITION Rated speed rpm : 1500 Rack travel in mm : 16.50 Tolerance mm : + 1.30 FULL LOAD DELIVERY AT FULL LOAD STOP Rated speed rpm : 1300	control lever position degree : 68.0 tolerance degree : + 4.0 Testing: Rated speed rpm : 300 rack travel mm : 7.00 Tolerance mm : + 0.10 Rated speed rpm : 100 CRT mm min. : > 8.00 Rated speed rpm : 375 TORQUE CONTROL Rated speed rpm : 1300
Rated speed rpm : 500 guide sleeve travel mm : 2.55 Tolerance mm : + 0.25 Rated speed rpm : 750 guide sleeve travel mm : 4.20 Tolerance mm : + 0.10 GUIDE SLEEVE POSITION Rated speed rpm : 1500 Rack travel in mm : 16.50 Tolerance mm : + 1.30 FULL LOAD DELIVERY AT FULL LOAD STOP Rated speed rpm : 1300 Aneroid pressure	control lever position degree : 68.0 tolerance degree : + 4.0 Testing: Rated speed rpm : 300 rack travel mm : 7.00 Tolerance mm : + 0.10 Rated speed rpm : 100 CRT mm min. : > 8.00 Rated speed rpm : 375 TORQUE CONTROL Rated speed rpm : 1300 rack travel mm : 10.45
Rated speed rpm : 500 guide sleeve travel mm : 2.55 Tolerance mm : + 0.25 Rated speed rpm : 750 guide sleeve travel mm : 4.20 Tolerance mm : + 0.10 GUIDE SLEEVE POSITION Rated speed rpm : 1500 Rack travel in mm : 16.50 Tolerance mm : + 1.30 FULL LOAD DELIVERY AT FULL LOAD STOP Rated speed rpm : 1300 Aneroid pressure hPa : 800	control lever position degree : 68.0 tolerance degree : + 4.0 Testing: Rated speed rpm : 300 rack travel mm : 7.00 Tolerance mm : + 0.10 Rated speed rpm : 100 CRT mm min. : > 8.00 Rated speed rpm : 375 TORQUE CONTROL Rated speed rpm : 1300
Rated speed rpm : 500 guide sleeve travel mm : 2.55 Tolerance mm : + 0.25 Rated speed rpm : 750 guide sleeve travel mm : 4.20 Tolerance mm : + 0.10 GUIDE SLEEVE POSITION Rated speed rpm : 1500 Rack travel in mm : 16.50 Tolerance mm : + 1.30 FULL LOAD DELIVERY AT FULL LOAD STOP Rated speed rpm : 1300 Aneroid pressure hPa : 800 Del. quantity	control lever position degree : 68.0 tolerance degree : + 4.0 Testing: Rated speed rpm : 300 rack travel mm : 7.00 Tolerance mm : + 0.10 Rated speed rpm : 100 CRT mm min. : > 8.00 Rated speed rpm : 375 TORQUE CONTROL Rated speed rpm : 1300 rack travel mm : 10.45 Tolerance mm : + 0.05
Rated speed rpm : 500 guide sleeve travel mm : 2.55 Tolerance mm : + 0.25 Rated speed rpm : 750 guide sleeve travel mm : 4.20 Tolerance mm : + 0.10 GUIDE SLEEVE POSITION Rated speed rpm : 1500 Rack travel in mm : 16.50 Tolerance mm : + 1.30 FULL LOAD DELIVERY AT FULL LOAD STOP Rated speed rpm : 1300 Aneroid pressure hPa : 800	control lever position degree : 68.0 tolerance degree : + 4.0 Testing: Rated speed rpm : 300 rack travel mm : 7.00 Tolerance mm : + 0.10 Rated speed rpm : 100 CRT mm min. :> 8.00 Rated speed rpm : 375 TORQUE CONTROL Rated speed rpm : 1300 rack travel mm : 10.45 Tolerance mm : + 0.05 Rated speed rpm : 800
Rated speed rpm : 500 guide sleeve travel mm : 2.55 Tolerance mm : + 0.25 Rated speed rpm : 750 guide sleeve travel mm : 4.20 Tolerance mm : + 0.10 GUIDE SLEEVE POSITION Rated speed rpm : 1500 Rack travel in mm : 16.50 Tolerance mm : + 1.30 FULL LOAD DELIVERY AT FULL LOAD STOP Rated speed rpm : 1300 Aneroid pressure hPa : 800 Del. quantity cm3/1000 strokes : 88.0	control lever position degree : 68.0 tolerance degree : + 4.0 Testing: Rated speed rpm : 300 rack travel mm : 7.00 Tolerance mm : + 0.10 Rated speed rpm : 100 CRT mm min. :> 8.00 Rated speed rpm : 375 TORQUE CONTROL Rated speed rpm : 1300 rack travel mm : 10.45 Tolerance mm : + 0.05
Rated speed rpm : 500 guide sleeve travel mm : 2.55 Tolerance mm : + 0.25 Rated speed rpm : 750 guide sleeve travel mm : 4.20 Tolerance mm : + 0.10 GUIDE SLEEVE POSITION Rated speed rpm : 1500 Rack travel in mm : 16.50 Tolerance mm : + 1.30 FULL LOAD DELIVERY AT FULL LOAD STOP Rated speed rpm : 1300 Aneroid pressure hPa : 800 Del. quantity	control lever position degree : 68.0 tolerance degree : + 4.0 Testing: Rated speed rpm : 300 rack travel mm : 7.00 Tolerance mm : + 0.10 Rated speed rpm : 100 CRT mm min. :> 8.00 Rated speed rpm : 375 TORQUE CONTROL Rated speed rpm : 1300 rack travel mm : 10.45 Tolerance mm : + 0.05 Rated speed rpm : 800

Rated speed rpm rack travel mm Tolerance mm	: 10.70	hPa Rated: Del. q cm3/10	speed rpm : uantity 00 strokes :	
ANEROID/ALTITUDE COMPENSATOR TEST		+ Check + cm3/10 + Spreed	tolerance 00s. :	← 4.0
SETTING			00 strokes : tolerance : 00s. :	5.0 8.0
Rated speed rpm Pressure hPa rack travel mm Tolerance mm MEASUREMENT	: 800 : 10.95	Aneroid hPa Rated:	d pressure : speed rpm : uantity 00 strokes :	_ 500
		+ cm3/10	00 strokes : tolerance	
Pressure hPa Rated speed rpm	500		00s. :	+- 3.0
Rated speed rpm	: 500	+ cm3/100	00 strokes : tolerance	3.5
Pressure hPa rack travel mm Tolerance mm	: 0.50		00s. :	8.0
Pressure hPa rack travel mm Tolerance mm START CUT-OUT	: + 0.05	+ Rated :	ravel in mm : speed rpm : nce 1/min :	1365
Rated speed rpm Rated speed rpm	: > 100 : < 220	STARTIN	NG FUEL DELIVE	RY
Check speed 1/min Check speed 1/min	: > 80 : < 240	rack ti Tolerar Del. qu cm3/100	ravel mm :	100 13.70 +- 0.10 85.0 +- 7.5
FUEL DELIVERY CHA	ARACTERISTICS		tolerance	+- 10.0
Aneroid pressure hPa Rated speed rpm	: 800 : 800	 	·	
Del. quantity cm3/1000 strokes cm3/1000 strokes	: 85.0 : ← 2.0	FOM IDI		
Check tolerance cm3/1000s.	: +- 4.0	🕂 Del. qu	speed rpm : uantity	300
Spreed cm3/1000 strokes	: 5.0	+ cm3/100	00 strokes : 00 strokes :	11.5 + 2.0
Check tolerance cm3/1000s.	: 8.0	+ cm3/100	tolerance DOS. :	+ 4.5
		+ Spreed + cm3/100	00 strokes :	2.5

cm3/1000s.	:	9.0	

Note remarks

Refer to Service Info for test and adjustment instructions.
See microcard(s) W400/...

Edition : 11.11.96 Test oil : ISO 4113

Combination No. : 9 400 085 317

Injection pump

Pump designation : PES6A95D410RS2772 EP type number : 9 400 084 018

Governor

Governer design. : RQV300...1300AB1066

: -9L

Governer no. : 9 420 080 282

Cust. part No. : 022 074 84 02

Customer-spec. information

Customer : MBB

Motor : 0M 366 A

Power KW : 125.0

TEST BENCH REQUIREMENTS

Inlet line : 4.1

Test oil inlet

temp. °C : 40 Tolerance °C : + 2.0

Overflow valve : 1 419 992 198

Inlet press. bar : 1.5

Test nozzle holde

assembly : 0 681 343 009

Opening pressure

bar : 173.5 Tolerance bar : + 1.5

Test lines : 1 680 750 015

Outside diameter : 6.0

x inside diameter: 3.0 x length mm : 600

REMARKS

(A) INJECTION PUMP SETTING VALUES Set equal delivery quant.

per values _____

BEGINNING OF DELIVERY

Test pressure bar : 26.0 Tolerance bar : + 1.0

Prestroke mm : 3.25
Tolerance mm : + 0.05

Check

tolerance mm : \leftarrow 0.10

Rack travel in mm : 10.50 Tolerance mm : + 1.50

Firing order : 1-5-3-6-2-

: 4

Phasing : 0-60-120-180-240

: -300

BASIC SETTING

Rated speed rpm : 1300

Rack travel in mm : 10.45 Tolerance mm : + 0.05

Del. quantity

cm3/1000 strokes : 88.0

cm3/1000 strokes : +- 1.0

Check tolerance cm3/1000s. : + 3.0

cm3/1000 strokes : 3.5

Check tolerance cm3/1000s. : 8.0

Rated speed rpm : 300	Check tolerance
1	- cm3/1000s. : +- 3.0
Rack travel in mm : 7.00	- Spreed - cm3/1000 strokes : 3.5
Tolerance mm : + 0.10	- Check tolerance
Del. quantity	- cm3/1000s. : 8.0
cm3/1000 strokes : 11.5	
cm3/1000 strokes : +- 2.0 Check tolerance	
cm3/1000S. : +- 4.5	- CONTROL LEVER
Spreed	-
cm3/1000 strokes : 5.5	control lever
Check tolerance	position degree : 109.0
cm3/1000s. : 9.0	tolerance degree : +- 4.0
•	- RATED SPEED
(B) SETTING OF INJECTION PUMP	
WITH GOVERNOR	rack travel mm : 9.40
7	Rated speed rpm : 1365
GUIDE SLEEVE TRAVEL	Tolerance 1/min : +- 5
GOIDE SEEEVE TRAVEL	rack travel mm : 4.00
Rated speed rpm : 300	Rated speed rpm : 1485
guide sleeve	Tolerance 1/min : + 15
travel mm : 1.05	0.50
Tolerance mm : \leftarrow 0.25	- rack travel mm : 0.50 - Tolerance mm : +- 0.50
Rated speed rpm : 1500	- Tolerance mm : +- 0.50 - Rated speed rpm : 1650
guide sleeve	L Rated Speed i piii . 1090
travel mm : 8.55	-
Tolerance mm : +- 0.05	
Date demand one is 500	LOW IDLE
Rated speed rpm : 500 - guide sleeve	
travel mm : 2.55	- - control lever
Tolerance mm : +- 0.25	- position degree : 68.0
	- tolerance degree : +- 4.0
Rated speed rpm : 750	• • • • • • • • • • • • • • • • • • • •
guide sleeve travel mm : 4.20	- Testing:
Tolerance mm : + 0.10	- Rated speed rpm : 300
	- rack travel mm : 7.00 - Tolerance mm : +- 0.10
GUIDE SLEEVE POSITION	- 100
Dated around non 1500	- Rated speed rpm : 100
Rated speed rpm : 1500	- - CRT mm min. :> 8.00
Rack travel in mm: 16.50	-
Tolerance mm : + 1.30	
†	- TORQUE CONTROL
FULL LOAD DELTHEDY AT FULL LOAD CTOD	- - Rated speed rpm : 1300
FULL LOAD DELIVERY AT FULL LOAD STOP	- rack travel mm : 10.45
Rated speed rpm : 1300	- Tolerance mm : + 0.05
Aneroid pressure	•
··· -	- Rated speed rpm : 800
Del. quantity	Rated speed rpm : 800 rack travel mm : 10.95
Del. quantity cm3/1000 strokes : 88.0	Rated speed rpm : 800 - rack travel mm : 10.95 - Tolerance mm : + 0.05
Del. quantity	Rated speed rpm : 800 rack travel mm : 10.95 Tolerance mm : +- 0.05 Rated speed rpm : 1000

rack travel mm Tolerance mm		+ Del. quantity + cm3/1000 strokes : 87.5 + cm3/1000 strokes : +- 2.0
ANEROID/ALTITUDE COMPENSATOR TEST		
SETTING		Check tolerance cm3/1000s. : 8.0
Rated speed rpm Pressure hPa rack travel mm Tolerance mm	: 10.95	Aneroid pressure hPa : - Rated speed rpm : 500 Del. quantity cm3/1000 strokes : 51.0 cm3/1000 strokes : +- 1.0
Pressure hPa Rated speed rpm	: - : 500	Check tolerance cm3/1000S. : +- 3.0 Spreed
Rated speed rpm		cm3/1000 strokes : 3.5 Check tolerance cm3/1000S. : 8.0
Pressure hPa rack travel mm Tolerance mm	: 0.50	BREAKAWAY
Pressure hPa rack travel mm Tolerance mm	: 1.15	Rack travel in mm : 9.40 Rated speed rpm : 1365 Tolerance 1/min : + 5
START CUT-OUT		Ī
Rated speed rpm Rated speed rpm	: > 100 : < 220	STARTING FUEL DELIVERY Rated speed rpm : 100
Check speed 1/min Check speed 1/min		rack travel mm : 13.70 Tolerance mm : +- 0.10 Del. quantity cm3/1000 strokes : 85.0
FUEL DELIVERY CHA	ARACTERISTICS	
Aneroid pressure hPa Rated speed rpm	: 800 : 800	<u> </u>
Del. quantity cm3/1000 strokes cm3/1000 strokes	: 85.0	LOW IDLE Rated speed rpm : 300
Check tolerance cm3/1000s. Spreed		Del. quantity - cm3/1000 strokes : 11.5 - cm3/1000 strokes : +- 2.0
cm3/1000 strokes Check tolerance cm3/1000S.	: 5.0 : 8.0	Check tolerance cm3/1000s. : +- 4.5 Spreed
Aneroid pressure	: 800	- cm3/1000 strokes : 5.5 - Check tolerance - cm3/1000s. : 9.0
hPa Rated speed rpm		T (1107 10003

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

: 11.11.96 Edition Test oil : ISO 4113

Combination No. : 9 400 085 319

Injection pump

Pump designation : PES6A95D41ORS2772 EP type number : 9 400 084 018

Governor

Governer design. : RQV300...1400AB1066

: -10L

: 9 420 080 287 Governer no.

Cust. part No. : 019 074 52 02

Customer-spec. information Customer : MBB : OM 352 A Motor Power KW : 141.0

TEST BENCH REQUIREMENTS

Inlet line : 4.1

Test oil inlet

temp. °C Tolerance °C : + 2.0

Overflow valve : 1 417 413 006

Inlet press. bar : 1.5

Test nozzle holde

: 0 681 343 009 assembly

Opening pressure

: 173.5 : +- 1.5 Tolerance bar

Test lines : 1 680 750 015

Outside diameter : 6.0

x inside diameter: 3.0 x length mm : 600

REMARKS

(A) INJECTION PUMP SETTING VALUES Set equal delivery quant.

per values _____

BEGINNING OF DELIVERY

Test pressure bar : 26.0 Tolerance bar : + 1.0

Prestroke mm : 3.25
Tolerance mm : + 0.05 Check

tolerance mm : +- 0.10

Rack travel in mm: 10.50 Tolerance mm : + 1.50

Firing order : 1-5-3-6-2-

: 0-60-120-180-240 Phasing

: -300

BASIC SETTING

Rated speed rpm : 1400

Rack travel in mm: 9.55 Tolerance mm : + 0.05

Del. quantity

cm3/1000 strokes : 78.5

cm3/1000 strokes : +- 1.0

Check tolerance cm3/1000s.

: +- 3.0

Spreed

cm3/1000 strokes : 3.5

Check tolerance

cm3/1000S. : 8.0

Rated speed rpm	: 300	Check tolerance cm3/1000s.	: +- 3.0
	+	Spreed	
Rack travel in mm	i: 7.00 +	cm3/1000 strokes	: 3.5
Tolerance mm	: + 0.10 +	Check tolerance	
Del. quantity	+	cm3/1000s.	: 8.0
cm3/1000 strokes	: 11.0		
cm3/1000 strokes			
Check tolerance	1		
-7/1000c	T	CONTROL LEVER	
cm3/1000s.	· · · · · · · · · · · · · · · · · · ·	CONTROL LEVER	
Spreed	<u> </u>		
cm3/1000 strokes		control lever	45.0
Check tolerance	†	position degree	: 62.0
cm3/1000s.	: 9.0	tolerance degree	: +- 4.0
	+	control lever	
(B) SETTING OF IN	JECTION PUMP +	position degree	
WITH GOVERNOR	+	tolerance degree	: +- 4.0
		RATED SPEED	
GUIDE SLEEVE TRAV	EL +		. 9.50
	700	rack travel mm	
Rated speed rpm	: 300 +	Rated speed rpm	
guide sleeve	+	Tolerance 1/min	: ← 5
travel mm	: 1.05		
Tolerance mm	: + 0.25 +	rack travel mm	: 4.00
	+	Rated speed rpm	: 1550
Rated speed rpm guide sleeve	: 1500	Tolerance 1/min	: +- 15
travel mm	: 8.55	rack travel mm	: 0.50
Talanana an			: +- 0.50
Tolerance mm	: + 0.05	Tolerance mm	
	+	Rated speed rpm	: 1650
Rated speed rpm	: 500 +		
guide sleeve	+		
guide sleeve travel mm	: 2.55 		
Tolerance mm		LOW IDLE	
	1		
Rated speed rpm	: 750		
	· '50	control lever	
guide sleeve	. (20		: 67.0
travel mm	: 4.20	position degree	. 01.0
Tolerance mm	: - 0.10	tolerance degree	; T- 4.U
		control lever	
GUIDE SLEEVE POSI	TION 1	position degree	: 19.0
AATAF OFFFAF LOOT	<u> </u>	tolerance degree	· + 4 n
Rated speed rpm	· 1500	cocci ance degree	4.0
veren sheen thii	· 1500	Testing:	
	. 16 50	resumy.	
Rack travel in mm	10.70	Dahad assessing	. 700
Tolerance mm	: + 1.50	Rated speed rpm	: 200
	†	rack travel mm	: (.00
		rack travel mm Tolerance mm	: +- 0.10
FULL LOAD DELIVER	Y AT FULL LOAD STOP	Rated speed rpm	
Datad annad	· 1/00	nated speed (pill	. 100
Rated speed rpm		CDT	. > 0.00
		CRT mm min.	: > 0.00
Aneroid pressure	. 700		
hPa	: 700 +		
hPa Del. quantity	+	Rated speed rpm	: 485
hPa	+	Rated speed rpm	: 485

B. A. al. a. a. al. a. a	4/00	t Check tolerance
Rated speed rpm		+ cm3/1000s. : +- 4.0
rack travel mm	9.55	+ Spreed
Tolerance mm	: +- 0.05	+ cm3/1000 strokes : 5.0
N-41 a1 a	. 000	+ Check tolerance + cm3/1000s. : 8.0
Rated speed rpm	300	+ cm3/1000s. : 8.0
rack travel mm	10.05	†
Tolerance mm	: + 0.05	+ Aneroid pressure
	4000	† hPa : 700
Rated speed rpm	: 1000	Rated speed rpm : 1000
rack travel mm Tolerance mm	: 9.80	Del. quantity
iolerance mm	: +- 0.10	+ cm3/1000 strokes : 79.0
		+ cm3/1000 strokes : + 1.5
ANEROID/ALTITUDE		+ cm3/1000s. : + 4.0
COMPENSATOR TEST		Spreed
		+ cm3/1000 strokes : 5.0
		+ Check tolerance
SETTING		+ cm3/1000s. : 8.0
		+
Rated speed rpm	: 500	+ Aneroid pressure
Pressure hPa	: 700	+ hPa : −
rack travel mm	: 10.05	Rated speed rpm : 500
Tolerance mm		Del. quantity
		+ cm3/1000 strokes : 42.0
MEASUREMENT		+ cm3/1000 strokes : $+$ 1.0
		Check tolerance
Pressure hPa	: -	+ cm3/1000s. : + 3.0
Rated speed rpm	: 500	Spreed
water characteristics	, ,,,	+ cm3/1000 strokes : 3.5
Rated speed rpm	: 500	- Check tolerance
rideca opeca i pin	. 300	- cm3/1000s. : 8.0
Pressure hPa	: 170	1
rack travel mm		
Tolerance mm		BREAKAWAY
TOTEL MILE IIM	0.05	DICANAMAT
Pressure hPa	: 330	1
rack travel mm	: 1.20	Rack travel in mm: 8.50
Tolerance mm		Rated speed rpm : 1465
roterance min	. + 0.10	Tolerance 1/min : +- 5
START CUT-OUT		I
DIAKI CUITUUI		
Rated speed rpm	: > 100	T STARTING FUEL DELIVERY
Rated speed rpm		T DIANTING FOLE DELIVERY
Mateu speed i Mil		Rated speed rpm : 100
Check		rack travel mm : 13.00
speed 1/min	; > 80	+ Tolerance mm : +- 0.10
Check	00	+ Del. quantity
	: < 240	+ cm3/1000 strokes : 80.0
speed 1/min	. \ 240	1
		+ cm3/1000 strokes : +- /.5 + Check tolerance
FUEL DELIVERY CHA	ARACTERISTICS	- theck toterance - cm3/1000s. : +- 10.0
		+
Aneroid pressure		†
hPa	: 700	†
Rated speed rpm	: 800	
Del. quantity		+ LOW IDLE
cm3/1000 strokes		+
cm3/1000 strokes		+ Rated speed rpm : 300
		•

Del. quantity		
cm3/1000 strokes	:	11.0
cm3/1000 strokes	: +-	2.0
Check tolerance		
cm3/1000s.	: +-	4.5
Spreed		
cm3/1000 strokes	:	5.5
Check tolerance		
cm3/1000s.	:	9.0

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

: 11.11.96 Edition : ISO 4113 Test oil

Combination No. : 9 400 085 329

Injection pump

Pump designation : PES6A95D410RS2772 EP type number : 9 400 084 018

Governor

Governer design. : RQV300...1300AB1256L

Governer no. : 9 420 080 297

Cust. part No. : 020 074 74 02

Customer-spec. information

Customer : MBB

: OM 366 LA Motor

Power KW : 150.0

TEST BENCH REQUIREMENTS

Inlet line : 4.1

Test oil inlet

40 temp. °C Tolerance *C : +- 2.0

Overflow valve : 1 417 413 006

Inlet press. bar : 1.5

Test nozzle holde

: 0 681 343 009 assembly

Opening pressure

: 173.5 : +- 1.5 Tolerance bar

Test lines : 1 680 750 015

Outside diameter : 6.0

x inside diameter : 3.0 x Length mm : 600

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values ____

BEGINNING OF DELIVERY

Test pressure bar: 26.0 Tolerance bar : + 1.0

Prestroke mm : 3.25 Tolerance mm : → 0.05

Check

tolerance mm : \leftarrow 0.10

Rack travel in mm: 10.50 Tolerance mm : +- 1.50

Firing order : 1-5-3-6-2-

Phasing : 0-60-120-180-240

: -300

BASIC SETTING

Rated speed rpm : 1300

Rack travel in mm : 11.15 Tolerance mm : **←** 0.05

Del. quantity

cm3/1000 strokes : 99.0

cm3/1000 strokes : +- 1.0

Check tolerance

: +- 3.0 cm3/1000s.

Spreed

cm3/1000 strokes : 3.5

Check tolerance

: 8.0 cm3/1000s.

Rated speed rpm : 300

†	cm3/1000 strokes : 3.5
Rack travel in mm: 7.00	Check tolerance
Tolerance mm : + 0.10	cm3/1000s. : 8.0
Del. quantity	
cm3/1000 strokes : 11.0 + cm3/1000 strokes : +- 2.0 +	
Check tolerance	CONTROL LEVER
cm3/1000s. : +- 4.5	SOMME LEVEN
Spreed	control lever
cm3/1000 strokes : 5.5 +	position degree : 60.0
Check tolerance	tolerance degree : +- 4.0
cm3/1000s, : 9.0	control lever
I	position degree : 118.0
(B) SETTING OF INJECTION PUMP	tolerance degree : + 4.0
WITH GOVERNOR +	_
†	RATED SPEED
CUIDE SI EEVE TRAVEI	rack travel mm : 10.10
GUIDE SLEEVE TRAVEL	rack travel mm : 10.10 Rated speed rpm : 1365
Rated speed rpm : 300	Tolerance 1/min : +- 5
guide sleeve	
travel mm : 1.05	rack travel mm : 4.00
Tolerance mm : + 0.25	Rated speed rpm : 1505
Rated speed rpm : 1500	Tolerance 1/min : +- 15
Rated speed rpm : 1500 + guide sleeve +	rack travel mm : 0.50
travel mm : 8.55	Tolerance mm : +- 0.50
Tolerance mm : + 0.05	Rated speed rpm : 1650
+	
Rated speed rpm : 500 +	
guide sleeve	LOW IDLE
travel mm : 2.55 + Tolerance mm : + 0.25 +	LOW IDLE
roter drice than	
Rated speed rpm : 750	control lever
guide sleeve	position degree : 74.0
travel mm : 4.20 +	tolerance degree : +- 4.0
travel mm : 4.20 + Tolerance mm : + 0.10 +	tolerance degree : +- 4.0
	tolerance degree : +- 4.0 control lever
Tolerance mm : + 0.10	tolerance degree : +- 4.0 control lever position degree : 16.0
	tolerance degree : +- 4.0 control lever position degree : 16.0
Tolerance mm : + 0.10	tolerance degree : +- 4.0 control lever position degree : 16.0
Tolerance mm : + 0.10 GUIDE SLEEVE POSITION Rated speed rpm : 1500	tolerance degree : +- 4.0 control lever position degree : 16.0 tolerance degree : +- 4.0 Testing:
Tolerance mm : + 0.10 GUIDE SLEEVE POSITION Rated speed rpm : 1500 Rack travel in mm : 16.50	tolerance degree : +- 4.0 control lever position degree : 16.0 tolerance degree : +- 4.0 Testing: Rated speed rpm : 300
Tolerance mm : + 0.10 GUIDE SLEEVE POSITION Rated speed rpm : 1500	tolerance degree : +- 4.0 control lever position degree : 16.0 tolerance degree : +- 4.0 Testing: Rated speed rpm : 300 rack travel mm : 7.00
Tolerance mm : + 0.10 GUIDE SLEEVE POSITION Rated speed rpm : 1500 Rack travel in mm : 16.50	tolerance degree : +- 4.0 control lever position degree : 16.0 tolerance degree : +- 4.0 Testing: Rated speed rpm : 300
Tolerance mm : + 0.10 GUIDE SLEEVE POSITION Rated speed rpm : 1500 Rack travel in mm : 16.50	tolerance degree : +- 4.0 control lever position degree : 16.0 tolerance degree : +- 4.0 Testing: Rated speed rpm : 300 rack travel mm : 7.00
Tolerance mm : + 0.10 GUIDE SLEEVE POSITION Rated speed rpm : 1500 Rack travel in mm : 16.50 Tolerance mm : + 1.30 FULL LOAD DELIVERY AT FULL LOAD STOP	tolerance degree : +- 4.0 control lever position degree : 16.0 tolerance degree : +- 4.0 Testing: Rated speed rpm : 300 rack travel mm : 7.00 Tolerance mm : +- 0.10 Rated speed rpm : 100
Tolerance mm : + 0.10 GUIDE SLEEVE POSITION Rated speed rpm : 1500 Rack travel in mm : 16.50 Tolerance mm : + 1.30 FULL LOAD DELIVERY AT FULL LOAD STOP Rated speed rpm : 1300	tolerance degree : +- 4.0 control lever position degree : 16.0 tolerance degree : +- 4.0 Testing: Rated speed rpm : 300 rack travel mm : 7.00 Tolerance mm : +- 0.10
Tolerance mm : + 0.10 GUIDE SLEEVE POSITION Rated speed rpm : 1500 Rack travel in mm : 16.50 Tolerance mm : + 1.30 FULL LOAD DELIVERY AT FULL LOAD STOP Rated speed rpm : 1300 Aneroid pressure	tolerance degree : +- 4.0 control lever position degree : 16.0 tolerance degree : +- 4.0 Testing: Rated speed rpm : 300 rack travel mm : 7.00 Tolerance mm : +- 0.10 Rated speed rpm : 100 CRT mm min. : > 8.00
Tolerance mm : + 0.10 GUIDE SLEEVE POSITION Rated speed rpm : 1500 Rack travel in mm : 16.50 Tolerance mm : + 1.30 FULL LOAD DELIVERY AT FULL LOAD STOP Rated speed rpm : 1300 Aneroid pressure hPa : 700	tolerance degree : +- 4.0 control lever position degree : 16.0 tolerance degree : +- 4.0 Testing: Rated speed rpm : 300 rack travel mm : 7.00 Tolerance mm : +- 0.10 Rated speed rpm : 100
Tolerance mm : + 0.10 GUIDE SLEEVE POSITION Rated speed rpm : 1500 Rack travel in mm : 16.50 Tolerance mm : + 1.30 FULL LOAD DELIVERY AT FULL LOAD STOP Rated speed rpm : 1300 Aneroid pressure hPa : 700 Del. quantity	tolerance degree : +- 4.0 control lever position degree : 16.0 tolerance degree : +- 4.0 Testing: Rated speed rpm : 300 rack travel mm : 7.00 Tolerance mm : +- 0.10 Rated speed rpm : 100 CRT mm min. : > 8.00
Tolerance mm : + 0.10 GUIDE SLEEVE POSITION Rated speed rpm : 1500 Rack travel in mm : 16.50 Tolerance mm : + 1.30 FULL LOAD DELIVERY AT FULL LOAD STOP Rated speed rpm : 1300 Aneroid pressure hPa : 700	tolerance degree : +- 4.0 control lever position degree : 16.0 tolerance degree : +- 4.0 Testing: Rated speed rpm : 300 rack travel mm : 7.00 Tolerance mm : +- 0.10 Rated speed rpm : 100 CRT mm min. : > 8.00
Tolerance mm : + 0.10 GUIDE SLEEVE POSITION Rated speed rpm : 1500 Rack travel in mm : 16.50 Tolerance mm : + 1.30 FULL LOAD DELIVERY AT FULL LOAD STOP Rated speed rpm : 1300 Aneroid pressure hPa : 700 Del. quantity cm3/1000 strokes : 99.0 cm3/1000 strokes : + 1.0 Check tolerance	tolerance degree : +- 4.0 control lever position degree : 16.0 tolerance degree : +- 4.0 Testing: Rated speed rpm : 300 rack travel mm : 7.00 Tolerance mm : +- 0.10 Rated speed rpm : 100 CRT mm min. : > 8.00 Rated speed rpm : 485 TORQUE CONTROL
Tolerance mm : + 0.10 GUIDE SLEEVE POSITION Rated speed rpm : 1500 Rack travel in mm : 16.50 Tolerance mm : + 1.30 FULL LOAD DELIVERY AT FULL LOAD STOP Rated speed rpm : 1300 Aneroid pressure hPa : 700 Del. quantity cm3/1000 strokes : 99.0 cm3/1000 strokes : + 1.0	tolerance degree : +- 4.0 control lever position degree : 16.0 tolerance degree : +- 4.0 Testing: Rated speed rpm : 300 rack travel mm : 7.00 Tolerance mm : +- 0.10 Rated speed rpm : 100 CRT mm min. : > 8.00 Rated speed rpm : 485

Tolerance mm	: - 0.05	+ Check tolerance + cm3/1000s. : 8.0
Rated speed rpm rack travel mm Tolerance mm	: 700 : 11.15	Aneroid pressure
Tolerance mm	: ← 0.05	hPa : - Rated speed rpm : 500
ANEROID/ALTITUDE COMPENSATOR TEST		+ Del. quantity + cm3/1000 strokes : 60.5 + cm3/1000 strokes : + 1.0
John Endaron (50)		Check tolerance cm3/1000s. : + 3.0
SETTING		Spreed
Rated speed rpm Pressure hPa rack travel mm Tolerance mm	: 500 : 700 : 11 15	Check tolerance cm3/1000s. : 8.0
Tolerance mm	: + 0.05	BREAKAWAY
MEASUREMENT		‡
Pressure hPa Rated speed rpm rack travel mm Tolerance mm	: 9.55	Rack travel in mm: 10.10 Rated speed rpm: 1365 Tolerance 1/min: +- 5
Rated speed rpm	: 500	CTARTIALS SUEL DELTUSON
Pressure hPa	: 300	+ STARTING FUEL DELIVERY
rack travel mm Tolerance mm	: 10.00 : + 0.10	Rated speed rpm : 100 rack travel mm : 13.70 Tolerance mm : +- 0.10
Pressure hPa rack travel mm	: 10.65	Del. quantity cm3/1000 strokes : 84.0
Tolerance mm	: ← 0.05	
START CUT-OUT		
Rated speed rpm Rated speed rpm		LOW IDLE
Check speed 1/min	: > 80	Rated speed rpm : 300
Check speed 1/min	: < 240	<pre>pel. quantity cm3/1000 strokes : 11.0 cm3/1000 strokes : +- 2.0</pre>
FUEL DELIVERY CHA	ARACTERISTICS	
Aneroid pressure	: 700	+ cm3/1000 strokes : 5.5 + Check tolerance
nPa Rated speed rpm Del. quantity		cm3/1000s. : 9.0
cm3/1000 strokes		1
Check tolerance cm3/1000s.	: + 4.0	<u> </u>
Spreed cm3/1000 strokes	: 5.0	+ End of test specification sheet

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

: 11.11.96 Edition : ISO 4113 Test oil

Combination No. : 9 400 085 363

Injection pump

Pump designation : PES6A95D41ORS2772 EP type number : 9 400 084 018

Governor

Governer design. : RQV300...1300AB1277L

Governer no. : 9 420 080 355

Cust. part No. : 025 074 28 02

Customer-spec. information Customer : MBB : OM 366 A Motor

Power XW : 125.0

TEST BENCH REQUIREMENTS

Inlet line : 4.1

Test oil inlet

40 temp. °C ÷ 2.0 Tolerance °C

Overflow valve : 1 419 992 198

Inlet press. bar : 1.5

Test nozzle holde

: 0 681 343 009 assembly

Opening pressure

: 173.5 bar Tolerance bar : + 1.5

Test Lines : 1 680 750 015

Outside diameter : 6.0

x inside diameter: 3.0 x Length mm : 600

REMARKS

(A) INJECTION PUMP SETTING VALUES Set equal delivery quant.

per values ____

BEGINNING OF DELIVERY

Test pressure bar : 26.0 Tolerance bar : +- 1.0

Prestroke mm : 3.25 Tolerance mm : + 0.05 Check

tolerance mm : \leftarrow 0.10

Rack travel in mm : 10.50 Tolerance mm : \leftarrow 1.50

Firing order : 1-5-3-6-2-

: 0-60-120-180-240 Phasing

: -300

BASIC SETTING

Rated speed rpm : 1300

Rack travel in mm : 10.55
Tolerance mm : + 0.05

Del. quantity

cm3/1000 strokes : 91.0

cm3/1000 strokes : +- 1.0

Check tolerance

cm3/1000s. : +- 3.0

Spreed

cm3/1000 strokes : 3.5

Check tolerance

cm3/1000s. : 8.0

Reted speed rpm : 300	+ Check tolerance + cm3/1000s. : +- 3.0 + Spreed
Rack travel in mm : 7.00	- cm3/1000 strokes : 3.5
Tolerance mm : + 0.10	+ Check tolerance
Del. quantity	+ cm3/1000s. : 8.0
cm3/1000 strokes : 11.0 cm3/1000 strokes : +- 2.0	†
Check tolerance	
cm3/1000s. : +- 4.5	CONTROL LEVER
Spreed	+
cm3/1000 strokes : 5.5	+ control lever
Check tolerance	position degree : 108.0
cm3/1000s. : 9.0	tolerance degree : +- 4.0
	RATED SPEED
(B) SETTING OF INJECTION PUMP	+
WITH GOVERNOR	+ rack travel mm : 9.50
	Rated speed rpm : 1350
GUIDE SLEEVE TRAVEL	Tolerance 1/min : +- 5
GOIDE SEEVE TRAVEL	rack travel mm : 4.00
Rated speed rpm : 300	Rated speed rpm : 1475
guide sleeve	Tolerance 1/min : + 15
travel mm : 1.05	†
Tolerance mm : +- 0.25	+ rack travel mm : 0.50 + Tolerance mm : +- 0.50
Rated speed rpm : 1500	+ Tolerance mm : +- 0.50 + Rated speed rpm : 1650
guide sleeve	T Nated speed (piii . 1050
travel mm : 8.55	}
Tolerance mm : +- 0.05	
500	LOW IDLE
Rated speed rpm : 500 guide sleeve	Ī
travel mm : 2.55	T control lever
Tolerance mm : + 0.25	position degree : 68.0
	tolerance degree : +- 4.0
Rated speed rpm : 750	†
guide sleeve travel mm : 4.20	† Testing:
travel mm : 4.20 Tolerance mm : + 0.10	Rated speed rpm : 300
rotel direction.	rack travel mm : 7.00
	rack travel mm : 7.00 Tolerance mm : +- 0.10
GUIDE SLEEVE POSITION	† Dated aread 5 100
Rated speed rpm : 1500	Rated speed rpm : 100
Rated Speed Ppill . 1900	$\frac{1}{4}$ CRT mm min. :> 8.00
Rack travel in mm : 16.50	+
Tolerance mm : ← 1.30	Rated speed rpm : 325
	†
FULL LOAD DELIVERY AT FULL LOAD STO	DP TORQUE CONTROL
TOLL LOAD DELIVERY AT FOLL LOAD STO	TOTAL CONTINUE
Rated speed rpm : 1300	Rated speed rpm : 1300
Aneroid pressure	rack travel mm : 10.55 Tolerance mm : + 0.05
hPa : 800	† Tolerance mm : +- 0.05
Del. quantity cm3/1000 strokes : 91.0	T Rated speed rom · 200
cm3/1000 strokes : +- 1.0	Rated speed rpm : 800 rack travel mm : 11.25
The second secon	rack travel mm : 11.25 Tolerance mm : + 0.05
	•

Rated speed rpm rack travel mm Tolerance mm	: 11.00	Aneroid pressure hPa Rated speed rpm Del. quantity cm3/1000 strokes cm3/1000 strokes	: 91.5
ANEROID/ALTITUDE COMPENSATOR TEST		Check tolerance cm3/1000s.	: +- 4.0
SETTING		cm3/1000 strokes Check tolerance cm3/1000s.	
rack travel mm Tolerance mm	: 800 : 11.45	Aneroid pressure hPa Rated speed rpm Del. quantity	: - : 500
MEASUREMENT		cm3/1000 strokes cm3/1000 strokes	: 62.U : +- 1.0
Pressure hPa Rated speed rpm	: - : 500	+ Check tolerance cm3/1000S. Spreed	
Rated speed rpm	: 500	rm3/1000 strokes uneck tolerance	
Pressure hPa rack travel mm Tolerance mm		cm3/1000s.	
Pressure hPa rack travel mm Tolerance mm START CUT-OUT	: 0.45	Rack travel in mm Rated speed rpm Tolerance 1/min	: 1350
Rated speed rpm Rated speed rpm	: > 100 : < 220	STARTING FUEL DEL	IVERY
Check speed 1/min Check speed 1/min	: > 80 : < 240	Rated speed rpm rack travel mm Tolerance mm Del. quantity cm3/1000 strokes cm3/1000 strokes	: 13.30 : + 0.10 : 82.5
FUEL DELIVERY CHA	ARACTERISTICS	Check tolerance cm3/1000s.	: +- 10.0
Aneroid pressure hPa Rated speed rpm	: 800 : 800	<u> </u>	
Del. quantity cm3/1000 strokes cm3/1000 strokes		LOW IDLE	. 700
Check tolerance cm3/1000s. Spreed	: +- 4.0	+ Rated speed rpm + Del. quantity + cm3/1000 strokes	
cm3/1000 strokes Check tolera		cm3/1000 strokes Check tolerance	: +- 2.0
cm3/1000s.	: 8.0	cm3/1000s. + Spreed	: +- 4.5
		+ cm3/1000 strokes	5.5

Check	tolerance
cm3/10	000s.

9.0

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

Edition : 04.11.96 Test oil : ISO 4113

Combination No. : 0 400 836 043

Injection pump

Pump designation : PES6A100D320/3RS2691

: -2

EP type number : 9 410 230 028

Governor

Governer design. : RQV350...1200AB1245R

Governer no. : 0 420 213 118

Cust. part No. :

Customer—spec. information Customer : CDC Motor : 6CT83G Power KW : 157.0

TEST BENCH REQUIREMENTS

Inlet line : 2

Test oil inlet

temp. °C : 40
Tolerance °C : + 2.0

Overflow valve : 1 417 413 047

Inlet press. bar : 1.5

Test nozzle holde

assembly : 1 688 901 101

Opening pressure

bar : 208.5 Tolerance bar : + 1.5

Test lines : 1 680 750 014

Outside diameter : 6.0

x inside diameter: 2.0 x length mm : 600

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values _____

BEGINNING OF DELIVERY

Test pressure bar : 28.0 Tolerance bar : + 1.0

Prestroke mm : 2.85
Tolerance mm : + 0.05
Check
tolerance mm : + 0.10

Rack travel in mm: 10.50 Tolerance mm: +- 1.50

Firing order : 1-5-3-6-2-

: 4

Phasing : 0-60-120-180-240

: -300

Start of delivery blocking

*NW after s.o.d. : 11.00 Tolerance : +- 0.50

Check

tolerance *NW : +- 0.75

Barrel no. : 1

BASIC SETTING

Rated speed rpm : 1200

Rack travel in mm : 10.80 Tolerance mm : + 0.05

Del. quantity

cm3/1000 strokes : 115.0

cm3/1000 strokes : + 1.0

MO1

		
Check tolerance cm3/1000s.	: + 3.0	Rack travel in mm : 16.50 Tolerance mm : +- 1.30
Spreed	 ‡	
cm3/1000 strokes	: 3.5	FULL LOAD DELIVERY AT FULL LOAD STOP
Check tolerance		Rated speed rpm : 1200
cm3/1000s.	: 8.0	Aneroid pressure hPa : -
Rated speed rpm	: 350	Del. quantity
, ,	+	cm3/1000 strokes : 115.0
Dook Associal da am	. , , , ,	cm3/1000 strokes : +- 1.0 Check tolerance
Rack travel in mm Tolerance mm		cm3/1000s. : +- 3.0
Del. quantity		Spreed
cm3/1000 strokes		cm3/1000 strokes : 3.5
cm3/1000 strokes	: + 2.0 +	Check tolerance
Check tolerance cm3/1000s.		cm3/1000s. : 8.0
Spreed	• = 4.5	
cm3/1000 strokes	: 5.5	
Check tolerance	+	CONTROL LEVER
cm3/1000s.	: 9.0 +	and the latest
	1	control lever position degree : 44.0
(B) SETTING OF INJE	ECTION PUMP	tolerance degree : +- 4.0
WITH GOVERNOR	+	-
	+	RATED SPEED
GUIDE SLEEVE TRAVEL	<u> </u>	rack travel mm : 9.80
GOIDE SECENC MANAGE	-	Rated speed rpm : 1245
Rated speed rpm	: 250	Tolerance 1/min : +- 5
guide sleeve	†	
travel mm Tolerance mm	: 0.10 : + 0.10	rack travel mm : 4.00 Rated speed rpm : 1330
TOLET GITLE HAR	0.10	Tolerance 1/min : + 15
	: 1200 +	
guide sleeve	+	rack travel mm : 0.50
travel mm :	: 6.90	Tolerance mm : +- 0.50 Rated speed rpm : 1400
Rated speed rpm	: 350	Nated Speed Part . 1400
guide sleeve	. +	
travel mm :	: 1.25 +	
Talananaa mm		
Tolerance mm	: +- 0.25	LOW IDLE
	: 450 +	LOW IDLE
Rated speed rpm :	: 450	control lever
Rated speed rpm : guide sleeve travel mm :	: 450 : 2.15	control lever position degree : 13.0
Rated speed rpm : guide sleeve travel mm :	: 450	control lever
Rated speed rpm : guide sleeve travel mm : Tolerance mm : Rated speed rpm :	: 450 : 2.15	control lever position degree : 13.0
Rated speed rpm guide sleeve travel mm : Tolerance mm : Rated speed rpm guide sleeve	: 450 : 2.15 : ← 0.25	control lever position degree : 13.0 tolerance degree : +- 4.0 Testing:
Rated speed rpm guide sleeve travel mm : Tolerance mm : Rated speed rpm guide sleeve travel mm :	: 450 : 2.15 : ← 0.25 : 1350	control lever position degree : 13.0 tolerance degree : +- 4.0 Testing: Rated speed rpm : 350
Rated speed rpm guide sleeve travel mm : Tolerance mm : Rated speed rpm guide sleeve travel mm :	: 450 : 2.15 : ← 0.25	control lever position degree : 13.0 tolerance degree : +- 4.0 Testing:
Rated speed rpm guide sleeve travel mm : Tolerance mm : Rated speed rpm guide sleeve travel mm :	2.15 + 0.25 1350 8.45 + 0.25	control lever position degree : 13.0 tolerance degree : + 4.0 Testing: Rated speed rpm : 350 rack travel mm : 4.60 Tolerance mm : + 0.10 rack travel mm : 2.00
Rated speed rpm guide sleeve travel mm : Tolerance mm : Rated speed rpm guide sleeve travel mm : Tolerance mm :	2.15 ÷ 0.25 1350 8.45 ÷ 0.25	control lever position degree : 13.0 tolerance degree : + 4.0 Testing: Rated speed rpm : 350 rack travel mm : 4.60 Tolerance mm : + 0.10

MO2

Rated speed rpm : 100

CRT mm min. :> 9.00

TORQUE CONTROL

Rated speed rpm : 1200 rack travel mm : 10.80 : **←** 0.05 Tolerance mm

START CUT-OUT

Rated speed rpm : > 100 290 Rated speed rpm : <

Check

speed 1/min : > 80

Check

speed 1/min ; < 300

BREAKAWAY

Rack travel in mm : 9.80 Rated speed rpm : 1245 Tolerance 1/min : +-

STARTING FUEL DELIVERY

Rated speed rpm : 100 rack travel mm : 20.00
Tolerance mm : + 1.00

Del. quantity

cm3/1000 strokes : 161.0 cm3/1000 strokes : + 7.5

Check tolerance

cm3/1000s. : + 10.0

LOW IDLE

Rated speed rpm : 350

Del. quantity

19.0 cm3/1000 strokes : cm3/1000 strokes : +- 2.0

Check tolerance

: **←** 4.5 cm3/1000s.

Spreed

cm3/1000 strokes : 5.5

Check tolerance

cm3/1000s. : 9.0

End of test specification sheet

MO3

Note remarks

Refer to Service Info for test and adjustment instructions.
See microcard(s) W400/...

Edition : 31.10.96 Test oil : ISO 4113

Combination No. : 0 400 846 231

Injection pump

Pump designation : PES6A90D410RS2293 EP type number : 0 410 896 031

Governor

Governer design. : RQV300...1425AB740L

Governer no. : 0 420 212 037

Cust. part No. :

Customer—spec. information Customer : MB-NFZ Motor : 0M352 Power KW : 95.6

TEST BENCH REQUIREMENTS

Inlet line : 1.2

Test oil inlet

temp. °C : 40
Tolerance °C : +- 2.0

Overflow valve : 1 419 922 198

Inlet press. bar : 1.5

Test nozzle holde

assembly : 0 681 343 009

Opening pressure

bar : 173.5 Tolerance bar : + 1.5

Test lines : 1 680 750 014

Outside diameter : 6.0

x inside diameter: 2.0 x length mm : 600

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values ____

BEGINNING OF DELIVERY

Test pressure bar : 26.0 Tolerance bar : +- 1.0

Firing order : 1-5-3-6-2-

: 4

Phasing : 0-60-120-180-240

: -300

Tolerance : \leftarrow 0.50

Check

tolerance *NW : + 0.75

BASIC SETTING

Del. quantity cm3/1000 strokes : 62.0

indication in the services in

cm3/1000 strokes : +- 0.5

Check tolerance

cm3/1000s. : +- 2.5

Spreed

cm3/1000 strokes : 3.0

Check tolerance cm3/1000s. : 4.5

Rated speed rpm : 300

Rack travel in mm : 7.60 Tolerance mm : + 0.10

Del. quantity

cm3/1000 strokes : 12.0 cm3/1000 strokes : +- 3.0

Check tolerance

cm3/1000s. : +- 5.0

Spreed

cm3/1000 strokes : 2.0

Check tolerance cm3/1000s.	: 4.0 ‡		
Chis/ (GGGs.	+.0	CONTROL LEVER	
(B) SETTING OF IN	JECTION PUMP	control lever	444.0
WITH GOVERNOR		position degree tolerance degree	
GUIDE SLEEVE TRAV	EL	RATED SPEED	
Rated speed rpm guide sleeve	+	rack travel mm Rated speed rpm	
travel mm Tolerance mm	: 8.50 : + 0.10	Tolerance 1/min	: +- 5
Rated speed rpm	: 550	rack travel mm Rated speed rpm Tolerance 1/min	: 155 0
guide sleeve travel mm	: 2.85	loterance limin	: +- 15
Tolerance mm		rack travel mm	: 0.50
	+	Tolerance mm	: +- 0.50
Rated speed rpm guide sleeve	+	Rated speed rpm	: 1700
travel mm	: 5.35		
Tolerance mm	: + 0.75	LOW IDLE	
Rated speed rpm guide sleeve	: 775	LOW IDEE	
travel mm	: 4.35	control lever	
Tolerance mm	+	position degree tolerance degree	: 68.0 : +- 4.0
Rated speed rpm guide sleeve	+	Testing:	
travel mm	: 0.95	0.4 . 1	700
Tolerance mm	: + 0.2	Rated speed rpm	: 300 : 7.60
		rack travel mm Tolerance mm	: +- 0.10
GUIDE SLEEVE POSI	TION +	10001 01100 1111	
Rated speed rpm	+	Rated speed rpm	: 100
	+	CRT mm min.	: > 9.10
Rack travel in mm Tolerance mm	: 16.50 + : + 1.30 +	Rated speed rpm	: 445
FULL LOAD DELIVER	Y AT FULL LOAD STOP		
Rated speed rpm	: 1400	START CUT-OUT	
Aneroid pressure	+		. 400
hPa	: - +	Rated speed rpm	:> 100
Del. quantity cm3/1000 strokes	: 62.0	Rated speed rpm	: < 220
cm3/1000 strokes		Check	
Check tolerance	ļ	speed 1/min	: > 80
cm3/1000s. Spreed	: +- 2.5	Check speed 1/min	: < 240
cm3/1000 strokes Check tolerance	+		
cm3/1000s.	: 4.5	BREAKAWAY	
	1		

Rack travel in mm : 8.70
Rated speed rpm : 1460
Tolerance 1/min : +- 5

STARTING FUEL DELIVERY

Rated speed rpm : 100 rack travel mm : 14.10 Tolerance mm : + 0.20 Del. quantity cm3/1000 strokes : 76.0 cm3/1000 strokes : + 5.0 Check tolerance cm3/1000s. : + 8.0

LOW IDLE

Rated speed rpm : 300

Del. quantity

cm3/1000 strokes : 12.0

cm3/1000 strokes : + 3.0

Check tolerance

cm3/1000s. : + 5.0

Spreed

cm3/1000 strokes : 2.0

Check tolerance

cm3/1000s. : 4.0

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

: 02.11.96 Edition : U2.11.96 : ISO 4113 Test oil

Combination No. : 0 400 846 522

Injection pump

Pump designation : PES6A90D410RS2667 EP type number : 0 410 896 080

Governor

Governer design. : RQV300...1400AB1065

: -4L

: 0 420 212 168 Governer no.

Cust. part No. :

Customer-spec. information Customer : MB-NFZ : OM 366 Motor : 100.0 Power KW

TEST BENCH REQUIREMENTS

Inlet line : 3.2

Test oil inlet

temo. °C Tolerance °C

Overflow valve : 1 419 922 198

Inlet press. bar : 1.5

Test nozzle holde

: 0 681 343 009 assembly

Opening pressure

: 173.5 : ← 1.5 Tolerance bar

Test Lines : 1 680 750 015

Outside diameter : 6.0

x inside diameter : 3.0 600 x length mm :

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values

BEGINNING OF DELIVERY

Test pressure bar : 26.0 Tolerance bar : + 1.0

Firing order : 1-5-3-6-2-

Phasing : 0-60-120-180-240

: -300

Tolerance : +- 0.50

Check

tolerance *NW : + 0.75

BASIC SETTING

Rated speed rpm : 1400

Rack travel in mm : 11.15 : +- 0.05 Tolerance mm

Del. quantity cm3/1000 strokes : 64.0

cm3/1000 strokes : \leftarrow 0.5

Check tolerance

cm3/1000s. : +- 2.5

Spreed

cm3/1000 strokes : 3.0

Check tolerance

4.5 cm3/1000s.

Rated speed rpm : 300

Rack travel in mm: 9.00

Tolerance mm : + 0.10

M07

Del. quantity		+	
cm3/1000 strokes		+ RATED SPEED	
cm3/1000 strokes	: ← 2.0	-	
Check tolerance		+ rack travel mm	
cm3/1000s.	: ← 4.0	+ Rated speed rpm	
Spreed	2.0	† Tolerance 1/min	: ← 5
cm3/1000 strokes	: 2.0	†	
Check tolerance		+ rack travel mm	: 4.00
cm3/1000s.	: 4.0	+ Rated speed rpm + Tolerance 1/min	
		Toterance 1/min	: +- 15
(B) SETTING OF IN	JIECTTON PIMP	T rack travel mm	: 0.50
WITH GOVERNOR	40 5 5 1 1 24 4 25 4	+ Tolerance mm	: + 0.50
WITH GOVERNOON		+ Rated speed rpm	
**		+	
GUIDE SLEEVE TRAV	/EL	+	
		+	
Rated speed rpm	: 300	+ LOW IDLE	
guide sleeve	4 05	†	
travel mm	: 1.05	†	
Tolerance mm	: + 0.25	control leverposition degree	: 78.0
Rated speed rpm	: 1450	tolerance degree	
guide sleeve	. 1430	T coterance degree	7.0
travel mm	: 8.45	- Testing:	
Tolerance mm	: +- 0.05	+	
		+ Rated speed rpm	: 300
Rated speed rpm	: 600	+ rack travel mm	: 9.00
guide sleeve		† Tolerance mm	: ← 0.10
travel mm	: 3.20	+	
Tolerance mm	: +- 0.80	+ Rated speed rpm	: 100
	450	†	. 40.70
Rated speed rpm	: 650	+ CRT mm min.	: > 10.30
guide sleeve	: 3.95	T Rotad anada non	: 610
travel mm Tolerance mm	: + 0.25	+ Rated speed rpm	. 010
TOTAL CHILD	0.23		
		TORQUE CONTROL	
FULL LOAD DELIVER	Y AT FULL LOAD STOP	+	
		+ Rated speed rpm	: 1400
Rated speed rpm	: 1400	+ rack travel mm	: 11.15
Aneroid pressure		† Tolerance mm	: ← 0.05
hPa	: -	† B -4-4	. 500
Del. quantity	: 64.0	Rated speed rpm rack travel mm	: 500 : 12.30
cm3/1000 strokes cm3/1000 strokes		+ Tolerance mm	: +- 0.10
Check tolerance	: 0.5	I locerance limit	. +- 0.16
cm3/1000s.	: + 2.5	Rated speed rpm	: 900
Spreed		rack travel mm	: 11.95
cm3/1000 strokes	: 3.0	+ Tolerance mm	: + 0.15
Check tolerance		+	
cm3/1000s.	: 4.5	+ Rated speed rpm	: 1100
		🕂 rack travel mm	: 11.55
		† Tolerance mm	: + 0.15
00MTD 01 MT 177		†	
CONTROL LEVER			
control lever		START CUT-OUT	
position degree	: 112.0	T 31AK1 CO1-OU1	
tolerance degree		Rated speed rpm	: > 100
totel alice degree	• • • • • • • • • • • • • • • • • • •	,	

Rated speed rpm	: < 220	
Check speed 1/min Check	: > 80	
speed 1/min	: < 240	
FUEL DELIVERY CHA	RACTERISTICS	
Aneroid pressure hPa	: - : 500	
Rated speed rpm Del. quantity		
cm3/1000 strokes cm3/1000 strokes	: 53.0 : + 1.0	
Check tolerance cm3/1000S.	: ← 3.5	
Aneroid pressure		
Rated speed rpm	900	
Del. quantity cm3/1000 strokes	: 56.5	
cm3/1000 strokes Check tolerance	; +- 1.5	
cm3/1000s.	: + 4.0	
BREAKAWAY		
BREAKAWAY Rack travel in mm Rated speed rpm Tolerance 1/min	: 10.10 : 1445 : + 5	
Rack travel in mm Rated speed rpm	: 1445 : + 5	
Rack travel in mm Rated speed rpm Tolerance 1/min	: 1445 : + 5	
Rack travel in mm Rated speed rpm Tolerance 1/min STARTING FUEL DEL Rated speed rpm rack travel mm Tolerance mm	: 1445 : + 5 IVERY : 100	
Rack travel in mm Rated speed rpm Tolerance 1/min STARTING FUEL DEL Rated speed rpm rack travel mm Tolerance mm Del. quantity cm3/1000 strokes	: 1445 : ← 5 IVERY : 100 : 17.20 : ← 0.20 : 83.0	
Rack travel in mm Rated speed rpm Tolerance 1/min STARTING FUEL DEL Rated speed rpm rack travel mm Tolerance mm Del. quantity	: 1445 : ← 5 IVERY : 100 : 17.20 : ← 0.20	
Rack travel in mm Rated speed rpm Tolerance 1/min STARTING FUEL DEL Rated speed rpm rack travel mm Tolerance mm Del. quantity cm3/1000 strokes cm3/1000 strokes Check tolerance	: 1445 : + 5 IVERY : 100 : 17.20 : + 0.20 : 83.0 : + 5.0	
Rack travel in mm Rated speed rpm Tolerance 1/min STARTING FUEL DEL Rated speed rpm rack travel mm Tolerance mm Del. quantity cm3/1000 strokes cm3/1000 strokes Check tolerance	: 1445 : + 5 IVERY : 100 : 17.20 : + 0.20 : 83.0 : + 5.0	
Rack travel in mm Rated speed rpm Tolerance 1/min STARTING FUEL DEL Rated speed rpm rack travel mm Tolerance mm Del. quantity cm3/1000 strokes cm3/1000 strokes Check tolerance cm3/1000s.	: 1445 : + 5 IVERY : 100 : 17.20 : + 0.20 : 83.0 : + 5.0	
Rack travel in mm Rated speed rpm Tolerance 1/min STARTING FUEL DEL Rated speed rpm rack travel mm Tolerance mm Del. quantity cm3/1000 strokes Check tolerance cm3/1000s. LOW IDLE Rated speed rpm Del. quantity cm3/1000 strokes	: 1445 : + 5 IVERY : 100 : 17.20 : + 0.20 : 83.0 : + 5.0 : + 8.0 : 4.0	
Rack travel in mm Rated speed rpm Tolerance 1/min STARTING FUEL DEL Rated speed rpm rack travel mm Tolerance mm Del. quantity cm3/1000 strokes cm3/1000 strokes Check tolerance cm3/1000s.	: 1445 : + 5 IVERY : 100 : 17.20 : + 0.20 : 83.0 : + 5.0 : + 8.0	

Spreed cm3/1000 strokes : 2.0 Check tolerance cm3/1000s. : 4.0

End of test specification sheet

M09

Note remarks

Refer to Service Info for test and adjustment instructions.
See microcard(s) W400/...

Edition : 06.11.96 Test oil : ISO 4113

Combination No. : 0 400 866 197

Injection pump

Pump designation : PES6A100D320/3RS2691

: -4

EP type number : 9 410 230 030

Governor

Governer design. : RSV450...1100A0C2238

: -3R

Governer no. : 0 420 233 330

Cust. part No. :

Customer—spec. information
Customer : CDC
Motor : 6 CT 830
Power KW : 151.0

TEST BENCH REQUIREMENTS

Inlet line : 2.

Test oil inlet

temp. °C : 40
Tolerance °C : + 2.0

Overflow valve : 1 419 992 198

Inlet press. bar : 1.5

Test nozzle holde

assembly : 1 688 901 101

Opening pressure

bar : 208.5 Tolerance bar : + 1.5

Test lines : 1 680 750 014

Outside diameter : 6.0

x inside diameter : 2.0 x length mm : 600

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values ____

BEGINNING OF DELIVERY

Test pressure bar : 28.0 Tolerance bar : + 1.0

Firing order : 1-5-3-6-2-

: 4

Phasing : 0-60-120-180-240

: -300

Tolerance : \leftarrow 0.50

Check

tolerance *NW : +- 0.75

BASIC SETTING

Rated speed rpm : 1100

Rack travel in mm : 12.15

Tolerance mm : +- 0.05

Del. quantity

cm3/1000 strokes : 120.5

cm3/1000 strokes : +- 1.0

Check tolerance

cm3/1000s. : +- 3.5

Spreed

cm3/1000 strokes :

4.0

Check tolerance

cm3/1000s. : 6.5

Rated speed rpm : 450

	_	
Rack travel in mm : 5.70	Rated speed rpm	: 1143
Tolerance mm : + 0.10	+ rack travel mm	: 11.15
Del. quantity	1	
cm3/1000 strokes : 18.0	+ Rated speed rpm	: 1200
cm3/1000 strokes : + 2.0	+ Tolerance 1/min	
Check tolerance	+ rack travel mm	
cm3/1000s. : +- 4.5	}	
Spreed	† rack travel mm	: 0.85
cm3/1000 strokes : 6.0	† Tolerance mm	: 0.85 : + 0.55
Check tolerance	+ Rated speed rpm	: 1360
cm3/1000s. : 8.0	+	
	+ Rated speed rpm	: 1144
	+ rack travel mm	: 11.15
(B) SETTING OF INJECTION PUMP	+	
WITH GOVERNOR	+ Rated speed rpm + Tolerance 1/min	: 1201
	+ Tolerance 1/min	: +- 5
	∔ rack travel mm	: 4.00
	+	
GUIDE SLEEVE POSITION	+ rack travel mm	
	+ Tolerance mm	: +- 0.55
Rated speed rpm : 800	+	
	+ Rated speed rpm	
Rack travel in mm: 0.50	† rack travel mm	: 11.15
Tolerance mm : + 0.20	+	
	+ Rated speed rpm	
governor spring	† Tolerance 1/min	
pre-tension	+ rack travel mm	: 4.00
click setting x : 4.25	+	
	+ rack travel mm	: 0.85
	† Tolerance mm	: ← 0.55
FULL LOAD DELIVERY AT FULL LOAD STOP	+	
	+ Rated speed rpm	: 1146
Rated speed rpm : 1100	+ rack travel mm	: 11.15
Aneroid pressure	†	4007
hPa : 900	+ Rated speed rpm	
Del. quantity	+ Tolerance 1/min	
cm3/1000 strokes : 120.5	† rack travel mm	: 4.00
cm3/1000 strokes : + 1.0	†	. 0.05
Check tolerance	+ rack travel mm	
cm3/1000s. : + 3.5	+ Tolerance mm	: +- 0.55
Spreed	T Botad around are	: 1147
cm3/1000 strokes : 4.0	+ Rated speed rpm + rack travel mm	
Check tolerance cm3/1000s. : 6.5	T rack travet min	. 11.13
cm3/1000s. : 6.5	T Pated speed nam	: 1204
	+ Rated speed rpm + Tolerance 1/min	
	rack travel mm	
CONTROL LEVER	I rack cravet inn	. 4.00
CONTROL LEVER	rack travel mm	: 0.85
control lever	Tolerance mm	: + 0.55
position degree : 96.0	100010100 1111	
tolerance degree : + 4.0	Rated speed rpm	: 1148
Total union degree 1 . The	- rack travel mm	
RATED SPEED	-	
	+ Rated speed rpm	: 1205
rack travel mm : 4.00	+ Tolerance 1/min	
Rated speed rpm : 1210	+ rack travel mm	: 4.00
The same and same and the same and same and same and same and same and same and same and same and same and same	+	.
ASSEMBLY GOVERNOR SETTING	rack travel mm	: 0.85
CONTRACTOR OF CONTRACTOR CONTRACTOR	,	

Tolerance mm	: +- 0.55	rack travel mm Tolerance mm	: 10.45 : + 0.10
LOW IDLE		Rated speed rpm	: 500
control lever position degree tolerance degree Setting point w/o Rated speed rpm	: +- 4.0 out bumper spring	Pressure hPa rack travel mm Tolerance mm Pressure hPa rack travel mm Tolerance mm	: 11.45
rack travel mm		<u> </u>	
Testing:		FUEL DELIVERY CH	ARACTERISTICS
Rated speed rpm rack travel mm Tolerance mm rack travel mm Rated speed rpm	: 5.70 : + 0.10 : 2.00	Aneroid pressure hPa Rated speed rpm Del. quantity cm3/1000 strokes	: 900 : 750
Tolerance 1/min	: - 30	cm3/1000 strokes Check tolerance	: ← 2.0
Rated speed rpm	: 100	cm3/1000s.	
CRT mm min.	: > 19.50	Aneroid pressure	: -
TORQUE CONTROL		 Rated speed rpm Del. quantity cm3/1000 strokes 	
Rated speed rpm rack travel mm Tolerance mm	: 12.15	cm3/1000 strokes Check tolerance cm3/1000s.	: +- 1.0
Rated speed rpm rack travel mm Tolerance mm		- STARTING FUEL DE	IVERY
Rated speed rpm rack travel mm Tolerance mm	: 1100 : 11.15 : +- 0.05	Rated speed rpm rack travel mm Tolerance mm Del. quantity	: 100 : 20.00 : + 1.00
ANEROID/ALTITUDE COMPENSATOR TEST		cm3/1000 strokes cm3/1000 strokes Check tolerance cm3/1000s.	: +- 10.0
SETTING		1	,,,,,
Rated speed rpm Pressure hPa rack travel mm Tolerance mm	: 500 : 900 : 13.10 : ← 0.10	LOW IDLE	
MEASUREMENT		Rated speed rpm Del. quantity cm3/1000 strokes	
Pressure hPa Rated speed rpm	: - : 500	cm3/1000 strokes	

Check tolerance cm3/1000s. : +- 4.5

Spreed

cm3/1000 strokes : 6.0

Check tolerance cm3/1000s. 8.0

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

: 17.08.96 Edition Test oil : ISO 4113

Combination No. : 0 400 844 047

Injection pump

Pump designation : PES4A90D410RS2294 EP type number : 0 410 894 011

Governor

Governer design. : RQV300...1425AB740L

Governer no. : 0 420 212 037

Cust. part No. :

Customer-spec. information : MB-NFZ Customer Motor : OM 314 : 62.5 Power KW

TEST BENCH REQUIREMENTS

Inlet line : 1.2

Test oil inlet

temp. °C Tolerance °C : +- 2.0

Overflow valve : 1 419 992 198

Inlet press. bar : 1.5

Test nozzle holde

: 0 681 343 009 assembly

Opening pressure

173.5 bar : **←** 1.5 Tolerance bar

Test Lines : 1 680 750 014

Outside diameter : 6.0

x inside diameter : 2.0 x length mm : 600

REMARKS

(A) INJECTION PUMP SETTING VALUES Set equal delivery quant.

per values _____

BEGINNING OF DELIVERY

26.0 : + 1.0 Test pressure bar : Tolerance bar

Firing order : 1- 3- 4- 2

: 0-90-180-270 Phasing

Tolerance : +- 0.50

Check

tolerance *NW : **←** 0.75

BASIC SETTING

Del. quantity cm3/1000 strokes : 63.0

cm3/1000 strokes : + 0.5

Check tolerance 2.5 cm3/1000s.

Spreed

cm3/1000 strokes : 3.0

Check tolerance cm3/1000s. : 4.5

Rated speed rpm : 300

Rack travel in mm: 7.30 : **←** 0.10 Tolerance mm

Del. quantity

12.0 cm3/1000 strokes : cm3/1000 strokes : +- 3.0

Check tolerance

cm3/1000s. : +- 5.0

4.0

Spreed

cm3/1000 strokes : 2.0 Check tolerance

cm3/1000s.

Rack travel in mm Tolerance mm FULL LOAD DELIVER	: 16.50 : + 1.30 Y AT FULL LOAD STOP	Rated speed rpm	: 445
GUIDE SLEEVE POSI		Rated speed rpm CRT mm min.	: 100
Rated speed rpm guide sleeve travel mm Tolerance mm	: 0.95	Testing: Rated speed rpm rack travel mm Tolerance mm	: 7.30
Rated speed rpm guide sleeve travel mm Tolerance mm		control lever position degree tolerance degree	
Rated speed rpm guide sleeve travel mm Tolerance mm	: 950 : 5.35	Rated speed rpm	
travel mm Tolerance mm Rated speed rpm guide sleeve travel mm Tolerance mm	: ← 0.10 : 550 : 2.85	rack travel mm Rated speed rpm Tolerance 1/min rack travel mm Tolerance mm	: 1550 : + 15 : 0.50
GUIDE SLEEVE TRAV Rated speed rpm guide sleeve		RATED SPEED rack travel mm Rated speed rpm Tolerance 1/min	: 1460
(B) SETTING OF IN WITH GOVERNOR	UECTION PUMP	tolerance degree	: 118.0 : + 4.0

STARTING FUEL DELIVERY

rack travel mm : 14.00 Tolerance mm: +- 0.30

Del. quantity cm3/1000 strokes : 76.0 cm3/1000 strokes : \leftarrow 5.0

Check tolerance cm3/1000s. : +- 8.0

LOW IDLE

300 Rated speed rpm : Del. quantity

cm3/1000 strokes : 12.0 cm3/1000 strokes : \leftarrow 3.0

Check tolerance cm3/1000s.

5.0 Spreed 2.0

cm3/1000 strokes : Check tolerance

cm3/1000s. 4.0

Note remarks

Refer to Service Info for test and adjustment instructions.
See microcard(s) W400/...

Edition : 13.11.96 Test oil : ISO 4113

Combination No. : 0 400 846 185

Injection pump

Pump designation : PES6A80D410RS2085Y

EP type number : 0 410 886 044

Governor

Governer design. : RQV300...1475AB533DL

Governer no. : 0 420 214 069

Cust. part No. :

Customer—spec. information Customer : MB—NFZ Motor : OM 352

TEST BENCH REQUIREMENTS

Inlet line : 1.2

Test oil inlet

temp. °C : 40 Tolerance °C : + 2.0

Overflow valve : 1 419 992 198

Inlet press. bar : 1.5

Test nozzle holde

assembly : 0 681 343 009

Opening pressure

bar : 173.5 Tolerance bar : + 1.5

Test lines : 1 680 750 014

Outside diameter : 6.0

x inside diameter: 2.0

x length mm : 600

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values ____

BEGINNING OF DELIVERY

Test pressure bar : 26.0 Tolerance bar : + 1.0

Prestroke mm : 2.20 Tolerance mm : + 0.05

Check

tolerance mm : \leftarrow 0.10

Rack travel in mm : 10.50 Tolerance mm : + 1.50

Firing order : 1-5-3-6-2-

: 4

Phasing : 0-60-120-180-240

: -300

BASIC SETTING

Rated speed rpm : 1450

Rack travel in mm: 8.25 Tolerance mm: + 0.05

Del. quantity

cm3/1000 strokes : 46.5

cm3/1000 strokes : +- 0.5

Check tolerance cm3/1000S. : + 2.0

Spreed

cm3/1000 strokes : 2.5

Check tolerance

cm3/1000s. : 4.0

Rated speed rpm : 300

M17

Rack travel in mm: 7.00 Tolerance mm: + 0.10 Del. quantity cm3/1000 strokes: 14.5 cm3/1000 strokes: + 1.5 Check tolerance cm3/1000s: + 3.5 Spreed cm3/1000 strokes: 4.0 Check tolerance cm3/1000s: 6.0	Del. quantity cm3/1000 strokes : 46.5 cm3/1000 strokes : + 0.5 Check tolerance cm3/1000s. : + 2.0 Spreed cm3/1000 strokes : 2.5 Check tolerance cm3/1000s. : 4.0
(B) SETTING OF INJECTION PUMP	CONTROL LEVER control lever
WITH GOVERNOR	+ position degree : 114.0 + tolerance degree : + 4.0
GUIDE SLEEVE TRAVEL	+ RATED SPEED
Rated speed rpm : 300 guide sleeve travel mm : 1.04 Tolerance mm : +- 0.20	rack travel mm : 7.20 Rated speed rpm : 1510 Tolerance 1/min : + 5
Rated speed rpm : 1516 guide sleeve travel mm : 8.76	rack travel mm : 4.00 Rated speed rpm : 1575 Tolerance 1/min : + 15
Tolerance mm : + 0.15 Rated speed rpm : 997	rack travel mm : 0.50 Tolerance mm : +- 0.50 Rated speed rpm : 1700
guide sleeve travel mm : 5.19	T Rated Speed 1 pm . 1700
Tolerance mm : +- 0.25	LOW IDLE
Rated speed rpm : 590 guide sleeve travel mm : 3.20	control lever
Tolerance mm : + 0.25 Rated speed rpm : 1790	+ position degree : 69.0 + tolerance degree : +- 4.0
guide sleeve travel mm : 11.50	Testing:
Tolerance mm : +- 0.50	Rated speed rpm : 300 rack travel mm : 7.00 Tolerance mm : +- 0.10
GUIDE SLEEVE POSITION	Rated speed rpm : 100
Rated speed rpm : 1420	+ CRT mm min. :> 8.20
Rack travel in mm : 16.50 Tolerance mm : +- 1.30	Rated speed rpm : 440
FULL LOAD DELIVERY AT FULL LOAD STOP	TORQUE CONTROL
Rated speed rpm : 1450 Aneroid pressure hPa : -	Rated speed rpm : 1450 rack travel mm : 8.25 Tolerance mm : +- 0.05

Rated speed rpm rack travel mm Tolerance mm	: 500 : 9.25 : +- 0.05	
Rated speed rpm rack travel mm Tolerance mm	: 800 : 9.00 : +- 0.10	
Rated speed rpm rack travel mm Tolerance mm	: 1200 : 8.35 : +- 0.15	
START CUT-OUT		
Rated speed rpm Rated speed rpm	: > 100 : < 220	
Check speed 1/min	: > 80	
Check speed 1/min	: < 240	
Pack traval in mm	. 7.20	
Rack travel in mm Rated speed rpm Tolerance 1/min	: 1510 : + 5	
Rated speed rpm Tolerance 1/min STARTING FUEL DEL Rated speed rpm rack travel mm Tolerance mm	: 1510 : + 5	
Rated speed rpm Tolerance 1/min STARTING FUEL DEL Rated speed rpm rack travel mm Tolerance mm Del. quantity cm3/1000 strokes cm3/1000 strokes	: 1510 : + 5 IVERY : 100 : 13.10	
Rated speed rpm Tolerance 1/min STARTING FUEL DEL Rated speed rpm rack travel mm Tolerance mm Del. quantity cm3/1000 strokes	: 1510 : + 5 IVERY : 100 : 13.10 : + 0.20 : 76.5	
Rated speed rpm Tolerance 1/min STARTING FUEL DEL Rated speed rpm rack travel mm Tolerance mm Del. quantity cm3/1000 strokes cm3/1000 strokes Check tolerance	: 1510 : + 5 IVERY : 100 : 13.10 : + 0.20 : 76.5 : + 7.5	
Rated speed rpm Tolerance 1/min STARTING FUEL DEL Rated speed rpm rack travel mm Tolerance mm Del. quantity cm3/1000 strokes cm3/1000 strokes Check tolerance cm3/1000s.	: 1510 : + 5 IVERY : 100 : 13.10 : + 0.20 : 76.5 : + 7.5	

Check tolerance cm3/1000s. : 6.0

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

Edition : 14.09.96 Test oil : ISO 4113

Combination No. : 0 400 876 218

Injection pump

Pump designation : PES6A90D410RS2293 EP type number : 0 410 896 031

Governor

Governer design. : RSV350...1400A0C1080

: L

Governer no. : 0 420 232 408

Cust. part No. :

Customer—spec. information
Customer : MB-NFZ
Motor : OM 352
Power KW : 92.0

TEST BENCH REQUIREMENTS

Inlet line : 1.2

Test oil inlet

temp. °C : 40 Tolerance °C : + 2.0

Overflow valve : 1 419 992 198

Inlet press. bar : 1.5

Test nozzle holde

assembly : 0 681 343 009

Opening pressure

bar : 173.5 Tolerance bar : + 1.5

Test lines : 1 680 750 014

Outside diameter : 6.0

x inside diameter : 2.0
x length mm : 600

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values ____

BEGINNING OF DELIVERY

Test pressure bar : 26.0

Tolerance bar : + 1.0

Firing order : 1-5-3-6-2-

: 4

Phasing : 0-60-120-180-240

: -300

Tolerance : \leftarrow 0.50

Check

tolerance "NW : +- 0.75

BASIC SETTING

Rated speed rpm : 1400

Rack travel in mm: 9.75
Tolerance mm: + 0.05

Del. quantity

cm3/1000 strokes : 63.5

cm3/1000 strokes : +- 0.5

Check tolerance

cm3/1000s. : +- 2.5

Spreed

cm3/1000 strokes : 3.0

Check tolerance

cm3/1000s. : 4.5

Rated speed rpm : 350

Del. quantity

cm3/1000 strokes : 11.0

cm3/1000 strokes : +- 1.0

Check tolerance	+
$cm3/1000s.$: \leftarrow 3.0	+
Spreed	
cm3/1000 strokes : 2.5	↓ LOW IDLE
Check tolerance	1
cm3/1000s. : 4.5	Setting point w/out bumper spring
. ,,,	t decently points in our pumper opining
	Rated speed rpm : 350
(B) SETTING OF INJECTION PUMP	rack travel mm : 6.80
WITH GOVERNOR	1
W2111 GG121W10W	+ Testing:
	1.0001113.
	+ rack travel mm : 2.00
GUIDE SLEEVE POSITION	Rated speed rpm : 2775
	+ Tolerance 1/min : +- 2325
Rated speed rpm : 800	+
	Rated speed rpm : 100
Rack travel in mm : 0.50	
Tolerance mm : + 0.20	← CRT mm min. : > 19,50
	1
governor spring	
pre-tension	+ TORQUE CONTROL
click setting x : 3.50	1
	Rated speed rpm : 1400
FULL LOAD DELIVERY AT FULL LOAD	
	+
Rated speed rpm : 1400	Rated speed rpm : 600
Aneroid pressure	rack travel mm : 10.00
hPa : -	Tolerance mm : +- 0.10
Del. quantity	1
cm3/1000 strokes : 63.5	1
cm3/1000 strokes : +- 0.5	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
Check tolerance	1
cm3/1000s. : +- 2.5	
Spreed	↓ FUEL DELIVERY CHARACTERISTICS
cm3/1000 strokes : 3.0	1
Check tolerance	Aneroid pressure
cm3/1000s. : 4.5	+ hPa : -
	Rated speed rpm : 600
	+ Del. quantity
CONTROL LEVER	+ cm3/1000 strokes : + 1.0
	+ Check tolerance
control lever	+ cm3/1000s. : +- 3.0
position degree : 118.0	+
tolerance degree : + 4.0	Aneroid pressure
3	+ hPa : -
	+ Rated speed rpm : 850
RATED SPEED	
RATED SPEED	+ Del. quantity
RATED SPEED rack travel mm : 0.85	
rack travel mm : 0.85	→ Del. quantity
rack travel mm : 0.85 Tolerance mm : + 0.55	Del. quantity cm3/1000 strokes : 57.0
rack travel mm : 0.85 Tolerance mm : + 0.55	Del. quantity cm3/1000 strokes : 57.0 cm3/1000 strokes : + 1.0
rack travel mm : 0.85 Tolerance mm : + 0.55	Del. quantity cm3/1000 strokes : 57.0 cm3/1000 strokes : + 1.0 Check tolerance
rack travel mm : 0.85 Tolerance mm : + 0.55 Rated speed rpm : 1570 rack travel mm : 4.00	Del. quantity cm3/1000 strokes : 57.0 cm3/1000 strokes : + 1.0 Check tolerance
rack travel mm : 0.85 Tolerance mm : + 0.55 Rated speed rpm : 1570 rack travel mm : 4.00	Del. quantity cm3/1000 strokes : 57.0 cm3/1000 strokes : + 1.0 Check tolerance
rack travel mm : 0.85 Tolerance mm : + 0.55 Rated speed rpm : 1570 rack travel mm : 4.00 Rated speed rpm : 1525	Del. quantity cm3/1000 strokes : 57.0 cm3/1000 strokes : + 1.0 Check tolerance
rack travel mm : 0.85 Tolerance mm : + 0.55 Rated speed rpm : 1570 rack travel mm : 4.00 Rated speed rpm : 1525 rack travel mm : 3.70	Del. quantity cm3/1000 strokes : 57.0 cm3/1000 strokes : + 1.0 Check tolerance cm3/1000s. : + 3.5
rack travel mm : 0.85 Tolerance mm : + 0.55 Rated speed rpm : 1570 rack travel mm : 4.00 Rated speed rpm : 1525	Del. quantity cm3/1000 strokes : 57.0 cm3/1000 strokes : + 1.0 Check tolerance

Rated speed rpm	:		100
rack travel mm	;		15.20
Tolerance mm	:	+-	0.20
Del. quantity			
cm3/1000 strokes	:		83.0
cm3/1000 strokes	:	+-	5.0
Check tolerance			
cm3/1000s.	:	+-	8.0

LOW IDLE

Rated speed rpm	: 350
Del. quantity cm3/1000 strokes cm3/1000 strokes	: 11.0 : + 1.0
Check tolerance cm3/1000s.	: + 3.0
Spreed cm3/1000 strokes Check tolerance	: 2.5
cm3/1000s.	: 4.5

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

: 24.08.95 Edition : ISO 4113 Test oil

Combination No. : 0 400 464 105

Injection pump

Pump designation : PES4A80D320/3RS1301

EP type number : 0 410 484 016

Governor

Governer design. : RSV325...1500A2C505R

Governer no. : 0 420 233 187

Cust. part No. :

Customer-spec. information

Customer : MWM : D226-4 Motor

TEST BENCH REQUIREMENTS

Inlet line : 3.1

Test oil inlet :

temp. °C 40 Tolerance °C

Overflow valve : 1 417 413 000

Inlet press. bar : 1.0

Test nozzle holde

: 0 681 343 009 assembly

Opening pressure

173.5 : **←** 1.5 Tolerance bar

: 1 680 750 014 Test lines

Outside diameter : 6.0

x inside diameter: 2.0

x length mm : 600

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values _____

BEGINNING OF DELIVERY

Test pressure bar : Tolerance bar : +- 1.0

Firing order : 1-3-4-2

: 0-90-180-270 Phasing

Tolerance : +- 0.50

Check

tolerance *NW : +- 0.75

BASIC SETTING

Del. quantity cm3/1000 strokes : 48.5

cm3/1000 strokes : +-0.5

Check tolerance cm3/1000s. 2.0

Spreed

cm3/1000 strokes : 2.5

cm3/1000s.4.0

325 Rated speed rpm :

Rack travel in mm : 7.00

: + 0.10Tolerance mm Del. quantity

cm3/1000 strokes : 13.0 cm3/1000 strokes : +-3.0

Check tolerance

Check tolerance

cm3/1000s.4.5 Spreed

cm3/1000 strokes :

2.0 Check tolerance

cm3/1000S. 3.5

(B) SETTING OF INJECTION PUMP	tolerance degree : +- 4.0
WITH GOVERNOR	Setting point w/out bumper spring
GUIDE SLEEVE POSITION	Rated speed rpm : 325 rack travel mm : 7.50
Rated speed rpm : 800	Testing:
Rack travel in mm : 0.65 Tolerance mm : + 0.35	Rated speed rpm : 325 rack travel mm : 7.00 Tolerance mm : +- 0.10
FULL LOAD DELIVERY AT FULL LOAD STOP	rack travel mm : 2.00 Rated speed rpm : 475
Rated speed rpm : 1480 Aneroid pressure hPa : -	+ Tolerance 1/min : +- 30 + -
Del. quantity cm3/1000 strokes : 48.5	
cm3/1000 strokes : +- 0.5 Check tolerance	START CUT-OUT
cm3/1000s. : +- 2.0 Spreed	Rated speed rpm :> 100
cm3/1000 strokes : 2.5	Check
Check tolerance - cm3/1000s. : 4.0 -	speed 1/min : > 80
	BREAKAWAY
CONTROL LEVER -	
control lever - position degree : 55.0 - tolerance degree : +- 4.0 -	Rack travel in mm : 8.00 Rated speed rpm : 1525 Tolerance 1/min : +- 5
RATED SPEED -	
rack travel mm : 8.00 - Rated speed rpm : 1525 -	STARTING FUEL DELIVERY
Tolerance 1/min : + 5	Rated speed rpm : 100 rack travel mm : 20.25
rack travel mm : 4.00	Tolerance mm : +- 0.75
Rated speed rpm : 1560 - Tolerance 1/min : +- 15 -	Pol. quantity cm3/1000 strokes : 100.0
	cm3/1000 strokes : +- 5.0 Check tolerance
rack travel mm : 1.00 - Tolerance mm : + 0.70 - Rated speed rpm : 1720 -	cm3/1000s. : + 8.0
rack travel mm : 4.00	
Rated speed rpm : 1570 -	LOW IDLE
	Rated speed rpm : 325
LOW IDLE	Del. quantity cm3/1000 strokes : 13.0
	- cm3/1000 strokes : +- 3.0
control lever	- Check tolerance

Spreed

cm3/1000 strokes : 2.0 Check tolerance cm3/1000s. : 3.5

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

: 14.11.96 Edition : ISO 4113 Test oil

Combination No. : 0 400 844 081

Injection pump

Pump designation : PES4A90D410RS2570 EP type number : 0 410 894 023

Governor

Governer design. : RQV300...1400AB1111

: -3L

Governer no. : 0 420 212 159

Cust. part No. :

Customer-spec. information Customer : MB-NFZ : OM 314 Motor Power KW : 57.0

TEST BENCH REQUIREMENTS

Inlet line : 1.2

Test oil inlet

temp. °C Tolerance °C : +- 2.0

Overflow valve : 1 419 992 198

Inlet press. bar : 1.5

Test nozzle holde

: 0 681 343 009 assembly

Opening pressure

: 173.5 bar Tolerance bar : **←** 1.5

Test Lines : 1 680 750 014

Outside diameter : 6.0

2.0 x inside diameter : x length mm : 600

REMARKS

(A) INJECTION PUMP SETTING VALUES Set equal delivery quant.

per values _____

BEGINNING OF DELIVERY

Test pressure bar : Tolerance bar : + 1.0

Firing order : 1-3-4-2

: 0-90-180-270 Phasing

Tolerance : **←** 0.50

Check

tolerance *NW : +- 0.75

BASIC SETTING

Rated speed rpm : 1400

Rack travel in mm: 10.55 Tolerance mm: +- 0.05

Del. quantity

cm3/1000 strokes : 59.5

cm3/1000 strokes : +- 0.5

Check tolerance cm3/1000s.

: +- 2.5

Spreed

cm3/1000 strokes : 3.0

Check tolerance

cm3/1000s. 4.5

Rated speed rpm : 300

Rack travel in mm : 8.70

Tolerance mm : \leftarrow 0.10 Del. quantity

cm3/1000 strokes : 13.0

cm3/1000 strokes : +- 2.0

Check tolerance	•	+	
cm3/1000s.	: +- 4.0	<u> </u>	
Spreed	7	CONTROL LEVER	
cm3/1000 strokes	: 2.0	-	
Check tolerance		control lever	50.0
cm3/1000s.	: 4.0	position degree	
	7	tolerance degree	: +- 4.0
(B) SETTING OF IN	LECTION DUMP	- RATED SPEED	
WITH GOVERNOR	JECTION FORE	L RATED SPEED	
MILLI GOAFULOK		rack travel mm	: 9.50
		- Rated speed rpm	
GUIDE SLEEVE TRAV	EL -	- Tolerance 1/min	
		-	
Rated speed rpm	: 300	rack travel mm	: 4.00
guide sisseve	4	- Rated speed rpm	: 1550
travel m	: 1.05	- Tolerance 1/min	: +- 15
Tolers mm	: - 0.25	-	
	+	rack travel mm	: 0.50
Rated speed rpm	: 1500	Tolerance mm	: + 0.50
guide sleeve	9 55	- Rated speed rpm	: 1650
travel mm	: 8.55	7	
Tolerance mm	: ← 0.05		
Rated speed rpm	: 500	LOW IDLE	
guide sleeve	. 500	LOW IDEE	
travel mm	: 2.55		
Tolerance mm	: + 0.25	control lever	
TOCCI GITCC IIII		- position degree	: 24.0
Rated speed rpm	: 750	tolerance degree	
guide sleeve	-	-	
travel mm	: 4.30	- Testing:	
Tolerance mm	: ← 0.20	-	
	+	- Rated speed rpm	
		 rack travel mm 	: 8.70
GUIDE SLEEVE POSI	TION	- Tolerance mm	: ← 0.10
	4500	Do Assal amas all assa	
Rated speed rpm	: 1500	- Rated speed rpm	: 605
Dook tonical in me	. 14 50		
Rack travel in mm Tolerance mm	: +- 1.30	- TORQUE CONTROL	
TOTAL BLICE WILL		-	
		- Rated speed rpm	: 1400
FULL LOAD DELIVER	Y AT FULL LOAD STOP	- rack travel mm	
	+	- Tolerance mm	: +- 0.05
Rated speed rpm	: 1400 - }	_	
Aneroid pressure	+	- Rated speed rpm	: 400
hPa	: - +	- rack travel mm	: 11.25
Del. quantity	+	- Tolerance mm	: ← 0.05
cm3/1000 strokes			400
cm3/1000 strokes	: +- 0.5	- Rated speed rpm	
Check tolerance	1	- rack travel mm	
cm3/1000s.	: ← 2.5	- Tolerance mm	: + 0.10
Spreed	: 3.0	- - Raced speed rpm	: 1000
cm3/1000 strokes Check tolerance	: 3.0		
em3/1000s.	: 4.5	- rack travel mm - Tolerance mm	: +- 4.85
CHO/ TOOUS.	· • • • • • • • • • • • • • • • • • • •		·

START CUT-OUT Rated speed rpm :> 100 Rated speed rpm : < 220 Check speed 1/min : > 80 Check speed 1/min : < 240 FUEL DELIVERY CHARACTERISTICS Aneroid pressure hPa 400 Rated speed rpm : Del. quantity cm3/1000 strokes : 45.0 cm3/1000 strokes : +-1.0 Check tolerance cm3/1000s. 3.0 : +--Spreed Check tolerance 5.5 cm3/1000s.BREAKAWAY 9.50 Rack travel in mm : Rated speed rpm : 1445 Tolerance 1/min : +-STARTING FUEL DELIVERY Rated speed rpm : 100 rack travel mm : 15.60 : **←** 0.20 Tolerance mm Del. quantity cm3/1000 strokes : cm3/1000 strokes : +-76.0 5.0 Check tolerance cm3/1000s. : +- 8.0 LOW IDLE 300 Rated speed rpm : Del. quantity cm3/1000 strokes : 13.0 cm3/1000 strokes : \leftarrow 2.0 Check tolerance cm3/1000s. : +- 4.0

cm3/1000 strokes : 2.0
Check tolerance
cm3/1000s. : 4.0

End of test specification sheet

Spreed

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

: 14.11.96 Edition : ISO 4113 Test oil

Combination No. : 0 400 844 087

Injection pump

Pump designation : PES4A90D410RS2666 EP type number : 0 410 894 029

Governor

Governer design. : RQV300...1400AB1065

: -5L

Governer no. : 0 420 212 169

Cust. part No. :

Customer-spec. information Customer : MB-NFZ : 0M364 Motor Power KW : 66.0

TEST BENCH REQUIREMENTS

Inlet line : 3.2

Test oil inlet

40 temp. °C Tolerance °C 2.0

Overflow valve : 1 419 992 198

Inlet press. bar : 1.5

Test nozzle holde

: 0 681 343 009 assembly

Opening pressure

: 173.5 bar Tolerance bar : +- 1.5

Test lines : 1 680 750 015

Outside diameter : 6.0

x inside diameter : 1.5 x length mm : 600

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values _____

BEGINNING OF DELIVERY

Test pressure bar : Tolerance bar : + 1.0

Firing order : 1-3-4-2

: 0-90-180-270 : +- 0.50 Phasing Phasing Tolerance

Check

tolerance *NW : +- 0.75

BASIC SETTING

Rated speed rpm : 1400

Rack travel in mm: 10.95 Tolerance mm : \leftarrow 0.05

Del. quantity cm3/1000 strokes : 63.5

cm3/1000 strokes : \leftarrow 0.5

Check tolerance

cm3/1000s. : +- 2.5

cm3/1000 strokes : 3.0

Check tolerance

cm3/1000s. 5.0

Rated speed rpm : 300

Rack travel in mm : 8.70 Tolerance mm: \leftarrow 0.10

Del. quantity

cm3/1000 strokes : 10.0 cm3/1000 strokes : + 2.0

NO1

Check tolerance		+ rack travel mm	: 9.90
cm3/1000s.	: +- 4.0	+ Rated speed rpm	
Spreed		+ Tolerance 1/min	: + 5
cm3/1000 strokes	: 2.0	+	
Check tolerance		+ rack travel mm	: 4.00
cm3/1000s.	: 4.0	+ Rated speed rpm	: 1575
		+ Tolerance 1/min	: ← 15
		+	
(B) SETTING OF INJ	ECTION PUMP	+ rack travel mm	: 0.50
WITH GOVERNOR		+ Tolerance ms	: +- 0.50
		+ Rated speed rpm	: 1700
		+	
GUIDE SLEEVE TRAVE	L	+	
	700		
Rated speed rpm	: 300	+ LOW IDLE	
guide steeve	4 05	†	
	: 1.05	†	
Tolerance mm	: ← 0.25	+ control lever	7/ 0
5 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	4500	+ position degree	
The second secon	: 1500	+ tolerance degree	: ← 4.0
guide sleeve	0.55	† +	
travel mm	8.55	† Testing:	
Tolerance mm	: +- 0.05	T Bottod and discount	- 700
5 April 2004 2004	. 500	+ Rated speed rpm	
The second secon	: 500	+ rack travel mm	
guide sleeve	. 2.55	+ Tolerance mm	0.10
travel mm	: 2.55 : + 0.25	T Batad anada nam	: 100
Tolerance mm	: + 0.25	+ Rated speed rpm	: 100
Rated speed rpm	: 750	CRT mm min.	: > 10.20
guide sleeve	. 130		. > 10.20
travel mm	: 4.20	Rated speed rpm	: 610
	: + 0.10	1 Marca Speed / pill	. 010
TOCCI di ICE IIII		1	
<u> </u>		TORQUE CONTROL	
FULL LOAD DELIVERY	AT FULL LOAD STOP	1	
. 022 20/10 022212///		Dimension a mm	: 1.00
Rated speed rpm	: 1400	+ Rated speed rpm	
Aneroid pressure		rack travel mm	: 10.95
hPa	: -	+ Tolerance mm	: +- 0.05
Del. quantity		1	
cm3/1000 strokes	: 63.5	+ Rated speed rpm	: 630
cm3/1000 strokes	: +- 0.5	+ rack travel mm	: 12.25
Check tolerance		+ Tolerance mm	: +- 0.05
cm3/1000s.	: ← 2.5	+	
Spreed		+ Rated speed rpm	: 900
cm3/1000 strokes	: 3.0	+ rack travel mm	: 11.70
Check tolerance		+ Tolerance mm	: +- 0.10
cm3/1000s.	: 5.0	+	
		+	
		+	
		+ START CUT-OUT	
CONTROL LEVER		†	. > 400
		+ Rated speed rpm	: > 100
control lever	444.0	+ Rated speed rpm	: < 220
position degree	: 116.0	T Chart	
tolerance degree	: +- 4.0	+ Check	
		+ speed 1/min	: > 80
RATED SPEED		+ Check	
		+ speed 1/min	: < 240

FUEL DELIVERY CHARACTERISTICS

Aneroid pressure

hPa : -Rated speed rpm : 630

Del. quantity

cm3/1000 strokes : 57.0
cm3/1000 strokes : +- 1.5
Check tolerance
cm3/1000s. : +- 4.0

hPa : -Rated speed rpm : 900

Del. quantity

Aneroid pressure

cm3/1000 strckes : 56.0 cm3/1000 strckes : + 1.5

Check tolerance

cm3/1000s. : +- 4.0

BREAKAWAY

Rack travel in mm: 9.90
Rated speed rpm: 1455
Tolerance 1/min: +- 5

STARTING FUEL DELIVERY

Rated speed rpm : 100 rack travel mm : 17.20 Tolerance mm : + 0.20 Del. quantity cm3/1000 strokes : 83.0 cm3/1000 strokes : + 5.0 Check tolerance cm3/1000s. : + 8.0

LOW IDLE

300 Rated speed rpm Del. quantity cm3/1000 strokes : 10.0 cm3/1000 strokes : +-2.0 Check tolerance cm3/1000s. : ← 4.0 Spreed cm3/1000 strokes : 2.0 Check tolerance cm3/1000s. 4.0

Note remarks

Refer to Service Info for test and adjustment instructions.
See microcard(s) W400/...

Edition : 18.11.96 Test oil : ISO 4113

Combination No. : 0 400 844 091

Injection pump

Pump designation : PES4A90D410RS2666 EP type number : 0 410 894 029

Governor

Governer design. : RQV300...1400AB1065

: -12L

Governer no. : 0 420 212 207

Cust. part No. :

Customer—spec. information Customer : MB-NFZ Motor : 0M364 Power KW : 61.0

TEST BENCH REQUIREMENTS

Inlet line : 2.3

Test oil inlet

temp. °C : 40
Tolerance °C : +- 2.0

Overflow valve : 1 419 992 198

Inlet press. bar : 1.5

Test nozzle holde

assembly : 0 681 343 009

Opening pressure

bar : 173.5 Tolerance bar : +- 1.5

Test lines : 1 680 750 015

Outside diameter : 6.0

utside diameter : c

x inside diameter: 3.0 x length mm : 600

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant. per values _____

BEGINNING OF DELIVERY

Test pressure bar : 26.0 Tolerance bar : + 1.0

Prestroke mm : 2.30
Tolerance mm : + 0.05
Check
tolerance mm : + 0.10

Rack travel in mm : 10.50 Tolerance mm : + 1.50

Firing order : 1-3-4-2

Phasing : 0-90-180-270 Tolerance : +- 0.50

Check

tolerance *NW : + 0.75

BASIC SETTING

Rated speed rpm : 1400

Rack travel in mm : 10.55

Tolerance mm : +- 0.05

Del. quantity

cm3/1000 strokes : 59.5

cm3/1000 strokes : +- 0.5

Check tolerance

cm3/1000s. : +- 2.5

Spreed

cm3/1000 strokes : 3.0

Check tolerance cm3/1000s. : 7.0	
Rated speed rpm : 300	LOW IDLE
Rack travel in mm: 8.70 Tolerance mm: + 0.10 Del. quantity cm3/1000 strokes: 10.0 cm3/1000 strokes: + 2.0	<pre>control lever position degree : 74.0 tolerance degree : +- 6.0 Testing:</pre>
Check tolerance cm3/1000s. : +- 4.0 Spreed cm3/1000 strokes : 4.5	Rated speed rpm : 300 rack travel mm : 8.70 Tolerance mm : + 0.10
Check tolerance cm3/1000s. : 7.0	Rated speed rpm : 100
(B) SETTING OF INJECTION PUMP	CRT mm min. : > 10.20
WITH GOVERNOR	Rated speed rpm : 610
FULL LOAD DELIVERY AT FULL LOAD STOP	TORQUE CONTROL
Rated speed rpm : 1400 Aneroid pressure hPa : - Del. quantity	Rated speed rpm : 1400 rack travel mm : 10.55 Tolerance mm : + 0.05 Rated speed rpm : 475
<pre>cm3/1000 strokes : 59.5 cm3/1000 strokes : + 0.5 Check tolerance cm3/1000s. : + 2.5</pre>	rack travel mm : 11.55 Tolerance mm : + 0.05 Rated speed rpm : 850
Spreed cm3/1000 strokes : 3.0 Check tolerance cm3/1000s. : 7.0	rack travel mm : 11.00 Tolerance mm : +- 0.10
	START CUT-OUT
CONTROL LEVER -	Rated speed rpm : > 100 Rated speed rpm : < 220
position degree : 111.0 + tolerance degree : + 6.0 +	Check speed 1/min :> 80 Check
RATED SPEED +	speed 1/min : < 240
rack travel mm : 9.50 Rated speed rpm : 1445 Tolerance 1/min : + 5	FUEL DELIVERY CHARACTERISTICS
rack travel mm : 4.00 Rated speed rpm : 1550 Tolerance 1/min : + 15	Aneroid pressure hPa : - Rated speed rpm : 475 Del. quantity
rack travel mma : 0.50 Tolerance mma : + 0.50 Rated speed rpm : 1650	cm3/1000 strokes : 46.0 cm3/1000 strokes : +- 1.5 Check tolerance cm3/1000s. : +- 3.5

Aneroid pressure

hPa 850 Rated speed :pm :

Del. quantity

cm3/1000 strokes : 49.0 cm3/1000 strokes : +- 1.5

Check tolerance

: **←** 3.5 cm3/1000s.

BREAKAWAY

Rack travel in mm : 9.50 Rated speed rpm : 1445 Tolerance 1/min : +- 5

STARTING FUEL DELIVERY

Rated speed rpm : 100 rack travel mm : 17.20 : +- 0.20 Tolerance mm

Del. quantity cm3/1000 strokes : 83.0 cm3/1000 strokes : \leftarrow 7.5

Check tolerance

: **←** 10.0 cm3/1000s.

LOW IDLE

Rated speed rpm : 300

Del. quantity cm3/1000 strokes : 10.0 cm3/1000 strokes : +-2.0

Check tolerance

cm3/1000s. 4.0

Spreed

cm3/1000 strokes : 4.5

Check tolerance

cm3/1000s. 7.0

Note remarks

Refer to Service Info for test and adjustment instructions.
See microcard(s) W400/...

Edition : 18.11.96 Test oil : ISO 4113

Combination No. : 0 400 844 099

Injection pump

Pump designation : PES4A95D410RS2837 EP type number : 0 410 894 991

Governor

Governer design. : RQV300...1400AB1065

: -29L

Governer no. : 0 420 212 247

Cust. part No. : 024 074 48 02

Customer—spec. information
Customer : MB-NFZ
Motor : OM 364
Power KW : 65.0

TEST BENCH REQUIREMENTS

Inlet line : 2.3

Test oil inlet

temp. °C : 40 Tolerance °C : +- 2.0

Overflow valve : 1 419 992 198

Inlet press. bar : 1.5

Test nozzle holde

assembly : 0 681 343 009

Opening pressure

bar : 173.5 Tolerance bar : + 1.5

Test Lines : 1 680 750 015

Outside diameter : 6.0

x inside diameter: 3.0 x length mm : 600

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values _____

BEGINNING OF DELIVERY

Test pressure bar : 26.0 Tolerance bar : + 1.0

Prestroke mm : 3.25
Tolerance mm : ← 0.05
Check
tolerance mm : ← 0.10

Rack travel in mm : 10.50 Tolerance mm : + 1.50

Firing order : 1-3-4-2

Phasing : 0-90-180-270

BASIC SETTING

Rated speed rpm : 1400

Rack travel in mm : 8.85 Tolerance mm : + 0.05

Del. quantity

cm3/1000 strokes : 72.0

cm3/1000 strokes : +- 1.0

Check tolerance

cm3/1000s. : +- 3.0

Spreed

cm3/1000 strokes : 3.5

Check tolerance

cm3/1000s. : 8.0

Rated speed rpm : 300

		+
Del. quantity cm3/1000 strokes cm3/1000 strokes Check tolerance	: +- 2.0	FULL LOAD DELIVERY AT FULL LOAD STOP Rated speed rpm : 1400
cm3/1000s. Spreed cm3/1000 strokes		Aneroid pressurehPa : -Del. quantity
Check tolerance cm3/1000s.	: 9.0	+ cm3/1000 strokes : 72.0 + cm3/1000 strokes : + 1.0
(B) SETTING OF IN	WECTION PUMP	+ Check tolerance + cm3/1000s. : + 3.0 + Spreed
WITH GOVERNOR		- cm3/1000 strokes : 3.5 - Check tolerance - cm3/1000s. : 8.0
GUIDE SLEEVE TRAV	'EL	T CAID / 10003.
Rated speed rpm guide sleeve		CONTROL LEVER
travel mm Tolerance mm	: 1.35 : ← 0.25	control lever position degree : 113.0
Rated speed rpm guide sleeve		tolerance degree : +- 6.0
travel mm Tolerance mm	: 8.77 : +- 0.25	+ RATED SPEED + + rack travel mm : 7.85
Rated speed rpm guide sleeve		Rated speed rpm : 1445 Tolerance 1/min : + 5
travel mm Tolerance mm	: 5.42 : +- 0.25	rack travel mm : 4.00 Rated speed rpm : 1520
Rated speed rpm guide sleeve	: 367 : 2.41	Tolerance 1/min : +- 15 + rack travel mm : 0.50
travel mm Tolerance mm	: + 0.25	Tolerance mm : + 0.50 Rated speed rpm : 1650
Rated speed rpm guide sleeve	: 417 : 3.01	+
travel mm Tolerance mm	: + 0.25	LOW IDLE
Rated speed rpm guide sleeve travel mm	: 490 : 3.42	control lever position degree : 68.0
Tolerance mm	: + 0.25	tolerance degree : +- 6.0
Rated speed rpm guide sleeve	: 1740 : 11.50	Setting point w/out bumper spring Rated speed rpm : 300
travel mm Tolerance mm	: + 0.50	Rated speed rpm : 300 rack travel mm : 5.00
GUIDE SLEEVE POSI	TION	Testing:
Rated speed rpm	: 1450	Rated speed rpm : 100 CRT mm min. : > 6.50
Rack travel in mm Tolerance mm		Rated speed rpm : 350

NO8

TORQUE CONTROL

Rated speed rpm : 1400 rack travel mm : 8.85 Tolerance mm : + 0.05

Rated speed rpm : 500 rack travel mm : 8.90 Tolerance mm : + 0.10

START CUT-OUT

Rated speed rpm : > 100 Rated speed rpm : < 220

Check

speed 1/min : > 80

Check

speed 1/min : < 240

FUEL DELIVERY CHARACTERISTICS

Aneroid pressure

hPa : -Rated speed rpm : 500

Del. quantity

cm3/1000 strokes : 52.5 cm3/1000 strokes : + 2.0

Check tolerance

cm3/1000s. : +- 4.0

BREAKAWAY

Rack travel in mm: 7.85
Rated speed rpm: 1445
Tolerance 1/min: +- 5

STARTING FUEL DELIVERY

Rated speed rpm : 100 rack travel mm : 10.50 Tolerance mm : + 0.20 Del. quantity cm3/1000 strokes : 83.0 cm3/1000 strokes : + 7.5 Check tolerance cm3/1000s. : + 10.0

LOW IDLE

Rated speed rpm : 300 Del. quantity 12.0 cm3/1000 strokes : cm3/1000 strokes : +-2.0 Check tolerance cm3/1000s. 4.5 Spreed 5.5 cm3/1000 strokes : Check tolerance cm3/1000s. 9.0

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

Edition : 19.11.96 Test oil : ISO 4113

Combination No. : 0 400 846 559

Injection pump

Pump designation : PES6A90D410RS2710 EP type number : 0 410 896 082

Governor

Governer design. : RQV300...1400AB1065

: -9L

Governer no. : 0 420 212 202

Cust. part No. :

Customer—spec. information Customer : MB-NFZ Motor : OM 366 Power KW : 92.0

TEST BENCH REQUIREMENTS

Inlet line : 2.3

Test oil inlet

temp. °C : 40 Tolerance °C : +- 2.0

Overflow valve : 1 419 992 198

Inlet press. bar : 1.5

Test nozzle holde

assembly : 0 681 343 009

Opening pressure

bar : 173.5 Tolerance bar : + 1.5

Test lines : 1 680 750 015

Outside diameter : 6.0

interior d'ameter

x inside diameter: 1.5 x length mm : 600

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values _____

BEGINNING OF DELIVERY

Test pressure bar : 26.0 Tolerance bar : + 1.0

Prestroke mm : 2.30
Tolerance mm : + 0.05
Check

tolerance mm : +- 0.10

Rack travel in mm : 10.50 Tolerance mm : +- 1.50

Firing order : 1-5-3-6-2-

: 4

Phasing : 0-60-120-180-240

: -300

BASIC SETTING

Rated speed rpm : 1400

Rack travel in mm : 10.35

Tolerance mm : + 0.05

Del. quantity cm3/1000 strokes : 59.5

cm3/1000 strokes : + 0.5

Check tolerance cm3/1000s. : +- 2.5

Spreed cm3/1000 strokes : 3.0

Check tolerance cm3/1000s. : 7.0

Rated speed rpm : 300	Tolerance 1/min : ← 15
Rack travel in mm: 8.80 Tolerance mm: + 0.10 Del. quantity cm3/1000 strokes: 12.0	rack travel mm : 0.50 Tolerance mm : +- 0.50 Rated speed rpm : 1650
cm3/1000 strokes : +- 2.0 +- Check tolerance cm3/1000s. : +- 4.0 +- Spreed	LOW IDLE
cm3/1000 strokes : 4.5 Check tolerance cm3/1000S. : 7.0	control lever position degree : 73.0 tolerance degree : + 6.0
(B) SETTING OF INJECTION PUMP WITH GOVERNOR	Testing: Rated speed rpm : 300 rack travel mm : 8.80 Tolerance mm : +- 0.10
GUIDE SLEEVE POSITION	Rated speed rpm : 100
Rated speed rpm : 1500	CRT mm min. : > 10.30
Rack travel in mm: 16.50 Tolerance mm: + 1.30	Rated speed rpm : 655
FULL LOAD DELIVERY AT FULL LOAD STOP	TORQUE CONTROL
Rated speed rpm : 1400 + Aneroid pressure + Pa : -	Rated speed rpm : 1400 rack travel mm : 10.35 Tolerance mm : + 0.05
Del. quantity cm3/1000 strokes : 59.5 cm3/1000 strokes : + 0.5 Check tolerance	Rated speed rpm : 500 rack travel mm : 11.40 Tolerance mm : +- 0.05
cm3/1000S. : + 2.5 Spreed cm3/1000 strokes : 3.0 Check tolerance	Rated speed rpm : 750 rack travel mm : 11.10 Tolerance mm : + 0.10
cm3/1000s. : 7.0	Rated speed rpm : 1100 rack travel mm : 16.40 Tolerance mm : +- 0.15
CONTROL LEVER	
control lever position degree : 109.0 tolerance degree : + 6.0	START CUT-OUT Rated speed rpm : > 100
RATED SPEED	Rated speed rpm : < 220 Check
rack travel mm : 9.30 Rated speed rpm : 1445 Tolerance 1/min : + 5	speed 1/min :> 80 Check speed 1/min : < 240
rack travel mm : 4.00 Rated speed rpm : 1555	FUEL DELIVERY CHARACTERISTICS

Aneroid pressure hPa Rated speed rpm : 500 Del. quantity cm3/1000 strokes : 46.0 cm3/1000 strokes : +-1.5 Check tolerance : +- 3.5 cm3/1000s. Aneroid pressure hPa Rated speed rpm : 750 Del. quantity cm3/1000 strokes : 49.0 cm3/1000 strokes : +- 1.5 Check tolerance : **←** 3.5 cm3/1000s. **BREAKAWAY** Rack travel in mm: 9.30 Rated speed rpm : 1445 Tolerance 1/min : +- 5 STARTING FUEL DELIVERY Rated speed rpm : 100 rack travel mm : 17.20 : +- 0.20 Tolerance mm Del. quantity cm3/1000 strokes : 83.0 cm3/1000 strokes : \leftarrow 7.5 Check tolerance cm3/1000s. : **←** 10.0 LOW IDLE 300 Rated speed rpm : Del. quantity cm3/1000 strokes : 12.0 cm3/1000 strokes : +-2.0 Check tolerance cm3/1000s.: +- 4.0 Spreed cm3/1000 strokes : 4.5 Check tolerance

7.0

End of test specification sheet

cm3/1000s.

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

Edition : 18.11.96 Test oil : ISO 4113

Combination No. : 0 400 846 616

Injection pump

Pump designation : PES6A95D41ORS2844 EP type number : 0 410 896 893

Governor

Governer design. : RQV300...1400AB1065

: -32L

Governer no. : 0 420 212 248

Cust. part No. : 025 074 5902

Customer—spec. information Customer : MB-NFZ Motor : OM 366 Power KW : 95.0

TEST BENCH REQUIREMENTS

Inlet line : 2.3

Test oil inlet

temp. °C : 40
Tolerance °C : + 2.0

Overflow valve : 1 419 992 198

Inlet press. bar : 1.5

Test nozzle holde

assembly : 0 681 343 009

Opening pressure

bar : 173.5
Tolerance bar : + 1.5

Test lines : 1 680 750 089

Outside diameter : 6.0

N13

x inside diameter : 3.0
x length mm : 600

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values ____

BEGINNING OF DELIVERY

Test pressure bar : 26.0 Tolerance bar : + 1.0

Prestroke mm : 3.25
Tolerance mm : + 0.05
Check
tolerance mm : + 0.10

Rack travel in mm : 10.50

Tolerance mm : + 1.50

Firing order : 1-5-3-6-2-

: 4

Phasing : 0-60-120-180-240

: -300

BASIC SETTING

Rated speed rpm : 1400

Rack travel in mm : 9.70 Tolerance mm : +- 0.05

Del. quantity

cm3/1000 strokes : 67.0

cm3/1000 strokes : +- 1.0

Check tolerance

cm3/1000s. : + 3.0

Spreed

cm3/1000 strokes : 3.5

Check tolerance

cm3/1000s. : 6.0

		Ĺ	
Rated speed rpm	: 300	FULL LOAD DELIVER	RY AT FULL LOAD STOP
Rack travel in mm Tolerance mm	: 5.90 : + 0.10	Rated speed rpm Aneroid pressure	: 1400
Del. quantity	. • 0.10	hPa	; -
cm3/1000 strokes		Del. quantity	
cm3/1000 strokes	: +- 2.0	+ cm3/1000 strokes	
Check tolerance		+ cm3/1000 strokes	: + 1.0
cm3/1000s. Spreed	: +- 4.5	+ Check tolerance + cm3/1000s.	: +- 3.0
cm3/1000 strokes	: 3.5	+ Spreed	3.0
Check tolerance		+ cm3/1000 strokes	: 3.5
cm3/1000s.	: 5.5	+ Check tolerance	
		+ cm3/1000s.	: 6.0
(B) SETTING OF IN	JECTION PUMP	I	
WITH GOVERNOR		+	
		+ CONTROL LEVER	
GUIDE SLEEVE TRAVI	El		
GOIDE SELEVE MAN	L.	position degree	: 116.0
Rated speed rpm	: 300	+ tolerance degree	
guide sleeve		+	
travel mm	: 1.06	+ RATED SPEED	
Tolerance mm	: ← 0.25	† rack travel mm	: 8.70
Rated speed rpm	: 1452	Rated speed rpm	
guide sleeve		+ Tolerance 1/min	
travel mm	: 8.03	+	
Tolerance mm	: ← 0.25	+ rack travel mm	: 4.00
Datad anood non	: 593	+ Rated speed rpm + Tolerance 1/min	
Rated speed rpm guide sleeve	: 593	T Toterance minim	. +- 13
travel mm	: 3.46	rack travel mm	: 0.50
Tolerance mm	: ← 0.25	Tolerance mm	: - 0.50
	413	+ Rated speed rpm	: 1650
Rated speed rpm	: 643	†	
guide sleeve travel mm	: 3.84	I	
Tolerance mm	: + 0.25	+ LOW IDLE	
	48	+	
Rated speed rpm	: 1030	†	
guide sleeve travel mm	: 5.33	control lever position degree	• 68.0
Tolerance mm	: +- 0.25	tolerance degree	
		+	
Rated speed rpm	: 1820	+ Testing:	
guide sleeve	. 11 50	† Dated anded	: 300
travel mm Tolerance mm	: 11.50 : + 0.50	Rated speed rpm rack travel mm	
roter arice iiiii	0.30	+ Tolerance mm	
		- +	
GUIDE SLEEVE POSIT	rion	Rated speed rpm	: 100
Rated speed rpm	: 1450	+ CRT mm min.	: > 6.50
nateu specu rpili	. ייעדיו	CIXT 1980 (LITT)	0.50
Rack travel in mm	: 16.50	+	
Tolerance mm	: ← 1.30	+ TORQUE CONTROL	

Rated speed rpm	
rack travel mm	: 9.70 : +- 0.05
Tolerance mm	: +- 0.05
Rated speed rpm	: 500
rack travel mm	: 9.75
Tolerance mm	: +- 0.15
START CUT-OUT	
Rated speed rpm Rated speed rpm	: > 100
Rated speed rpm	: < 220
Check	
speed 1/min	: > 80
Check	
speed 1/min	: < 240
FUEL DELIVERY CHA	ARACTERISTICS
Aneroid pressure	
hPa Rated speed rpm	: - : 500
Del. quantity	: 500
cm3/1000 strokes	: 50.0
cm3/1000 strokes	
Check tolerance	
cm3/1000s.	: ← 4.0
BREAKAWAY	
Rack travel in mm	- · · -
Rated speed rpm Tolerance 1/min	
TOTEL GIVE TANKIT	•
STARTING FUEL DEL	IVERY
Rated speed rpm	: 100
rack travel mm	: 12.40
Tolerance mm	: + 0.20
Del. quantity	
cm3/1000 strokes	
cm3/1000 strokes Check tolerance	: +- 5.0
cm3/1000s.	: +- 8.0
LOW IDLE	

Rated speed rpm : 300

N15

Del. quantity cm3/1000 strokes : 10.0 cm3/1000 strokes : + 2.0 Check tolerance cm3/1000s. : + 4.5 Spreed cm3/1000 strokes : 3.5 Check tolerance cm3/1000s. : 5.5

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

Edition : 08.11.96 Test oil : ISO 4113

Combination No. : 0 400 876 310

Injection pump

Pump designation : PES6A90D410RS2596 EP type number : 0 410 896 073

Governor

Governer design. : RSV350...1200A0c1148

: -1L

Governer no. : 0 420 232 456

Cust. part No. :

Customer—spec. information Customer : MB—NFZ Motor : 0M352A Power KW : 110.0

TEST BENCH REQUIREMENTS

Inlet line : 1.2

Test oil inlet

temp. °C : 40
Tolerance °C : +- 2.0

Overflow valve : 1 419 992 198

Inlet press. bar : 1.5

Test nozzle holde

assembly : 0 681 343 009

Opening pressure

bar : 173.5 Tolerance bar : + 1.5

Test Lines : 1 680 750 014

Outside diameter : 6.0

x inside diameter: 2.0 x length mm : 600

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values _____

BEGINNING OF DELIVERY

Test pressure bar : 26.0 Tolerance bar : +- 1.0

Firing order : 1-5-3-6-2-

: 4

Phasing : 0-60-120-180-240

: -300

Tolerance : \leftarrow 0.50

Check

tolerance *NW : + 0.75

BASIC SETTING

Rated speed rpm : 1180

Rack travel in mm: 12.15

Tolerance mm : \leftarrow 0.05

Del. quantity cm3/1000 strokes : 73.5

cm3/1000 strokes : + 0.5

Check tolerance

cm3/1000s. : \leftarrow 2.5

Spreed

cm3/1000 strokes : 3.0

Check tolerance

cm3/1000s. : 5.0

Rated speed rpm : 350

Del. quantity

cm3/1000 strokes : 14.0 cm3/1000 strokes : + 2.0

Check tolerance cm3/1000s.	: +- 4.0	- - Setting point w/o	out bumper spring
Spreed cm3/1000 strokes	: 2.5	- - Rated speed rom	: 350
Check tolerance		 Rated speed rpm rack travel mm 	: 8.50
cm3/1000s.	: 4.5	•	
		- Testing:	
(B) SETTING OF IN	JECTION PUMP	- rack travel mm	: 2.00
WITH GOVERNOR	+	- Rated speed rpm	: 510
	<u> </u>	- Tolerance 1/min	: +- 30
		- Rated speed rpm	: 100
GUIDE SLEEVE POSI	1100	- - CRT mann min.	: > 19.50
Rated speed rpm	: 800	-	
Rack travel in mm	: 0.50	TORQUE CONTROL	
Tolerance mm		-	
•	†	- Rated speed rpm	
governor spring	†	- rack travel mm	12.15
pre-tension click setting x	: 4.00	- Tolerance mm	כט.ט 🕶 :
CLICK Setting X	. 4.00	- Rated speed rpm	• 725
	<u> </u>	rack travel mm	: 725 : 13.65
FULL LOAD DELIVER	Y AT FULL LOAD STOP	- rack travel mm - Tolerance mm	: +- 0.05
Rated speed rpm	• 1180	- Rated speed rpm	• 900
Aneroid pressure		· rack travel mm	: 13.10
hPa	: 900	Tolerance mm	
Del. quantity	1	-	
cm3/1000 strokes			
cm3/1000 strokes	: ← 0.5	- ANEROID/ALTITUDE	
Check tolerance	<u> </u>	COMPENSATOR TEST	
cm3/1000s.	: ← 2.5	•	
Spreed	. 70	CETTANO	
cm3/1000 strokes	: 3.0	SETTING	
Check tolerance cm3/1000s.	: 5.0	Rated speed rpm	: 500
CIID7 10003.	. 3.0	Pressure hPa	: 900
•	4	rack travel mm	: 13.55
0017001 1 7170		Tolerance mm	: +- 0.05
CONTROL LEVER	#	MEASUREMENT	
control lever	+	_	
position degree		Pressure hPa	: -
tolerance degree	: +- 4.U	Rated speed rpm	: 500
DATED COCCO	†	rack travel mm	: 11.55 : +- 0.05
RATED SPEED	‡	Tolerance mm	
rack travel mm	: 0.85	Rated speed rpm	: 500
Tolerance mm	: ← 0.55	_	435
Rated speed rpm	: 1460 +	Pressure hPa	: 235
		rack travel mm	: 12.10
rack travel mm Rated speed rpm	: 4.00 + : 1360 +	Tolerance mm	: +- 0.10
	4	Pressure hPa	: 450
	1	rack travel mm	: 12.65
	 +	Tolerance mm	: +- 0.05
LOW IDLE	+		

FUEL DELIVERY CHARACTERISTICS

Aneroid pressure

900 hPa 725 Rated speed rpm :

Del. quantity

cm3/1000s.

81.0 cm3/1000 strokes : cm3/1000 strokes : \leftarrow 1.0 Check tolerance : **←** 3.5

Aneroid pressure

900 Rated speed rpm 850

Del. quantity

cm3/1000 strokes : 76.0 cm3/1000 strokes : +-2.0 Check tolerance

cm3/1000s. 4.5

Spreed

Check tolerance

cm3/1000s.5.5

Aneroid pressure

hPa Rated speed rpm : 500

Del. quantity

cm3/1000 strokes : 52.0 cm3/1000 strokes : + 1.0

Check tolerance

cm3/1000s. : +- 3.0

STARTING FUEL DELIVERY

100 Rated speed rpm : rack travel mm : 16.20 : **←** 0.20 Tolerance mm Del. quantity

cm3/1000 strokes : 83.0 cm3/1000 strokes : \leftarrow 5.0

Check tolerance

cm3/1000s.: +- 8.0

LOW IDLE

350 Rated speed rpm

Del. quantity

cm3/1000 strokes : 14.0 cm3/1000 strokes : +-2.0

Check tolerance

: +cm3/1000s.4.0 Spreed

2.5 cm3/1000 strokes :

Check tolerance

cm3/1000S. 4.5

End of test specification sheet

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

Combination No. : 0 402 034 701

Injection pump

Pump designation : PES4P120B120RS3379 EP type number : 0 412 024 702

Governor

Governer design. : RQV475...1250PA1316K

Governer no. : 0 421 815 544

Cust. part No. : 3928600

Customer-spec. information Customer : CDC Motor : 4BTA-A Power KW : 97.0

TEST BENCH REQUIREMENTS

Inlet line : 3.2

Test oil inlet

temp. °C Tolerance °C : +- 2.0

Overflow valve : 2 417 413 093

Inlet press. bar : 2.0 Tolerance bar : + 0.1

Test nozzle holde

: 1 688 901 103 assembly

Opening pressure

: 208.5 Tolerance bar : + 1.5

Test Lines : 1 680 750 015

Outside diameter : 6.0

x inside diameter : 3.0 x length mm : 600

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values _____

BEGINNING OF DELIVERY

Test pressure bar: 17.0 Tolerance bar : + 1.0

Prestroke mm : 3.60 Tolerance mm : + 0.05 Check tolerance mm : \leftarrow 0.10

Rack travel in mm : 10.50 Tolerance mm : +- 1.50

Firing order : 1-3-4-2

: 0-90-180-270 Phasing Tolerance : **←** 0.30

Check

tolerance *NW : + 0.75

Start of delivery blocking

*NW after s.o.d. : 7.00 Tolerance : \leftarrow 0.50

Check

tolerance $^{\circ}NW$: \leftarrow 0.75

Barrel no. : 1

BASIC SETTING

Rated speed rpm : 1250

Rack travel in mm: 11.55 Tolerance mm : \leftarrow 0.05

Del. quantity

cm3/1000 strokes : 143.0

7/4000	
cm3/1000 strokes : + 1.0	
	FULL LOAD DELIVERY AT FULL LOAD STOP
Check tolerance	
cm3/1000s, : +- 4.0	- Rated speed rpm : 1250
4	Aneroid pressure
Spreed	- hPa : 1200
cm3/1000 strokes : 8.0	Del. quantity
Chis/ 1000 Strokes : 0.0	
	- cm3/1000 strokes : 143.0
Check tolerance	- cm3/1000 strokes : +- 1.0
cm3/1000s. : 12.0	- Check tolerance
4	- cm3/1000s. : +- 4.0
Rated speed rpm : 475	- Spreed
	- cm3/1000 strokes : 8.0
7.50	Check tolerance
Rack travel in mm: 5.50	- cm3/1000s. : 12.0
Tolerance mm : + 0.10	
Del. quantity	
cm3/1000 strokes : 26.5	
cm3/1000 strokes : + 3.0	- CONTROL LEVER
Check tolerance	
cm3/1000s. : + 5.0	- - control lever
1	
Spreed	- position degree : 117.0
cm3/1000 strokes : 4.0	- tolerance degree : +- 4.0
Check tolerance	-
cm3/1000s. : 8.0	- RATED SPEED
4	-
	- rack travel mm : 10.50
(B) SETTING OF INJECTION PUMP	- Rated speed rpm : 1315
WITH GOVERNOR	- Tolerance 1/min : + 15
MILL GOVEKINOK	- Toterance Minne . The 15
1	
	- rack travel mm : 6.00
GUIDE SLEEVE TRAVEL	- Rated speed rpm : 1390
	- Tolerance 1/min : + 5
Rated speed rpm : 475	•
guide sleeve	- rack travel mm : 0.50
travel mm : 1.59 +	- Tolerance mm : + 0.50
Tolerance mm : \leftarrow 0.20	- Rated speed rpm : 1500
	•
Rated speed rpm : 1313	
guide sleeve	
travel mm : 9.12	- LOW IDLE
	LOW TALE
Tolerance mm : \leftarrow 0.15	•
†	·
Rated speed rpm : 985 +	- control lever
guide sleeve	position degree : 73.0
travel mm : 6.26	tolerance degree : +- 4.0
Tolerance mm : $+$ 0.25	•
4	- Testing:
Rated speed rpm : 680	
	Rated speed rom • 475
guide sleeve	Rated speed rpm : 475
travel mm : 3.62	Rated speed rpm : 475 rack travel mm : 5.50
	- Rated speed rpm : 475 - rack travel mm : 5.50 - Tolerance mm : +- 0.10
travel mm : 3.62 Tolerance mm : + 0.25	rack travel mm : 5.50 Tolerance mm : +- 0.10
travel mm : 3.62 Tolerance mm : + 0.25 Rated speed rpm : 1660	Rated speed rpm : 475 rack travel mm : 5.50 Tolerance mm : + 0.10 Rated speed rpm : 400
travel mm : 3.62 Tolerance mm : + 0.25 Rated speed rpm : 1660 quide sleeve	rack travel mm : 5.50 Tolerance mm : + 0.10 Rated speed rpm : 400
travel mm : 3.62 Tolerance mm : + 0.25 Rated speed rpm : 1660	rack travel mm : 5.50 Tolerance mm : +- 0.10
travel mm : 3.62 Tolerance mm : + 0.25 Rated speed rpm : 1660 guide sleeve travel mm : 13.50	rack travel mm : 5.50 Tolerance mm : + 0.10 Rated speed rpm : 400
travel mm : 3.62 Tolerance mm : + 0.25 Rated speed rpm : 1660 quide sleeve	rack travel mm : 5.50 Tolerance mm : + 0.10 Rated speed rpm : 400 CRT mm min. : > 6.80
travel mm : 3.62 Tolerance mm : + 0.25 Rated speed rpm : 1660 guide sleeve travel mm : 13.50	rack travel mm : 5.50 Tolerance mm : + 0.10 Rated speed rpm : 400

TORQUE CONTROL		
Rated speed rpm	: 1250	
rack travel mm Tolerance mm	: 11.55 : +- 0.05	
Rated speed rpm rack travel mm	: 750 : 11.20	
Tolerance mm	: 11.20 : ← 0.20	
Rated speed rpm	: 550	
rack travel mm	: 10.80	
Tolerance mm	: +- 0.20	
ANEROID/ALTITUDE		
COMPENSATOR TEST		
SETTING		
Rated speed rpm	1250	
Pressure hPa	: 1200	
MEASUREMENT		
Programa hDs		
Pressure hPa Rated speed rpm	1250	
rack travel mm	: 9.45	
Tolerance mm	: + 0.20	
Rated speed rpm	: 1250	
Pressure hPa	: 800	
rack travel mm	: 10.50 : + 0.20	
Tolerance mm		
Pressure hPa	: 680 : 9.85	
rack travel mm Tolerance mm	: ← 0.20	
START CUT-OUT		
Rated speed rpm	: > 100 : < 375	
Rated speed rpm	: < 375	
Check speed 1/min	: > 80	
Check		
speed 1/min	: < 385	
FUEL DELIVERY CHARACTERISTICS		
Aneroid pressure		
nPa	: 1200	
Rated speed rpm	: 750	

Del. quantity cm3/1000 strokes cm3/1000 strokes Check tolerance cm3/1000S. Spreed cm3/1000 strokes Check tolerance cm3/1000S.	: 142.0 : + 3.0 : + 6.0 : 8.0 : 12.0
Aneroid pressure hPa Rated speed rpm Del. quantity cm3/1000 strokes cm3/1000 strokes Check tolerance cm3/1000s.	: 1250 : 111.5 : + 1.0 : + 3.0
Rack travel in mm Rated speed rpm Tolerance 1/min	1: 10.50 : 1315 : + 15
Rated speed rpm rack travel mm Tolerance mm Del. quantity cm3/1000 strokes cm3/1000 strokes Check tolerance cm3/1000s.	: 100 : 21.00 : + 0.50 : + 20.0 : + 25.0
LOW IDLE Rated speed rpm Del. quantity cm3/1000 strokes cm3/1000 strokes Check tolerance cm3/1000s. Spreed cm3/1000 strokes Check tolerance cm3/1000 strokes Check tolerance cm3/1000s.	: 475 : 26.5 : + 3.0 : + 5.0 : 4.0 : 8.0

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

Test oil Edition

: 13.06.95 : ISO 4113

Combination No. : 0 400 866 179

Injection pump

Pump designation : PES6A100D320/3RS2691

EP type number : 9 410 230 025

Governor

Governer design. : RSV550...1100A0C2238

: -2R

Governer no.

: 0 420 233 296

Cust. part No. : 3923479

Customer-spec. information Customer : CDC : 6CTA-830 Motor

Power KW : 157.0

TEST BENCH REQUIREMENTS

Inlet line : 3.2

Test oil inlet

temp. °C 40 : +- 2.0 Tolerance *C

Overflow valve : 1 417 413 047

Inlet press. bar : 1.5 Tolerance bar : +- 0.1

Test nozzle holde

: 1 688 901 101 assembly

Opening pressure

: 208.5 bar Tolerance bar : +- 1.5

Test lines : 1 680 750 014

Outside diameter : 6.0

x inside diameter : 2.0

x length mm : 600

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values _____

BEGINNING OF DELIVERY

Test pressure bar : 17.0 Tolerance bar : +- 1.0

Prestroke mm : 2.85
Tolerance mm : + 0.05

Check

: + 0.10 tolerance mm

: 1-5-3-6-2-Firing order

Phasing : 0-60-120-180-240

: -300

Tolerance : +- 0.50

Check

tolerance °NW : +- 0.75

Start of delivery blocking

*NW after s.o.d. : 11.00 Tolerance : **←** 0.50

Check

tolerance °NW : **←** 0.75

Barrel no. : 1

BASIC SETTING

Rated speed rpm : 1100

Rack travel in mm : 12.75

Tolerance mm : \leftarrow 0.05

Del. quantity	+
cm3/1000 strokes : 124.0	rack travel mm : 11.70
	+ Rated speed rpm : 1170
cm3/1000 strokes : +- 1.0	Tolerance 1/min : +- 5
Check tolerance	rack travel mm : 4.00
cm3/1000s. : +- 3.0	+ Rated speed rpm : 1230
	+ Tolerance 1/min : + 5
Spreed	+
cm3/1000 strokes : 4.0	+ rack travel mm : 0.85
	Tolerance mm : + 0.55
Check tolerance	Rated speed rpm : 1400
cm3/1000s. : 6.5	+ rack travel mm : 4.00
	+ rack travel mm : 4.00 + Rated speed rpm : 1240
Rack travel in mm: 5.70	T Mateu speed 1 pail . 1240
Tolerance mm : +- 0.10	1
	LOW IDLE
(B) SETTING OF INJECTION PUMP	+
WITH GOVERNOR	+
	+ control lever
	+ position degree : 79.0
OUTDO OF COURT DOOT TON	tolerance degree : + 4.0
GUIDE SLEEVE POSITION	Catalina naint/aut b
Rated speed rom : 800	+ Setting point w/out bumper spring
Rated speed rpm : 800	Rated speed rpm : 550
Rack travel in mm: 0.50	rack travel mm : 5.20
Tolerance mm : + 0.20	Track travet iiiii . 5.20
TOTAL GIBE IN	+ Testing:
governor spring	+
pre-tension	+ Rated speed rpm : 550
click setting x : 3.00	+ rack travel mm : 5.70
	† Tolerance mm : + 0.10
FULL LOAD DELIVERY AT FULL LOAD STOP	Rated speed rpm : 100
TOLL LOND DELIVERY AT TOLL LOND OTO.	+
Rated speed rpm : 1100	+ CRT mm min. : > 19.00
Aneroid pressure	+
hPa : 900	+
Del. quantity	+ TORQUE CONTROL
cm3/1000 strokes : 124.0	† David and and 4400
cm3/1000 strokes : + 1.0	+ Rated speed rpm : 1100
Check tolerance : +- 3.0	+ rack travel mm : 12.75
1.0000	+ Tolerance mm : +- 0.05
Spreed cm3/1000 strckes : 4.0	I
Check tolerance	ANEROID/ALTITUDE
cm3/1000S. : 6.5	COMPENSATOR TEST
uno 10000 . 013	Total Charles 1501
	+
	+ SETTING
CONTROL LEVER	†
	+ Rated speed rpm : 1100
control lever	+ Pressure hPa : 900
position degree : 97.0	+ rack travel mm : 12.75
tolerance degree : +- 4.0	+ Tolerance mm : ← 0.05
DATEN COEEN	# MEASUREMENT
RATED SPEED	ד ויובאסטעבויובואו

Pressure hPa : Rated speed rpm : 500
rack travel mm : 10.90
Tolerance mm : + 0.10

Rated speed rpm : 1100

Pressure hPa : 465 rack travel mm : 12.20 Tolerance mm : + 0.20

Pressure hPa : 340 rack travel mm : 11.25 Tolerance mm : + 0.05

FUEL DELIVERY CHARACTERISTICS

Aneroid pressure

hPa : -Rated speed rpm : 500

Del. quantity

cm3/1000 strokes : 83.5 cm3/1000 strokes : + 1.0

Check tolerance

cm3/1000s. : + 2.5

BREAKAWAY

Rack travel in mm : 11.70
Rated speed rpm : 1170
Tolerance 1/min : +- 5

STARTING FUEL DELIVERY

Rated speed rpm : 100 rack travel mm : 20.50 Tolerance mm : + 0.50

Del. quantity

cm3/1000 strokes : 145.0 cm3/1000 strokes : + 10.0

Check tolerance

cm3/1000s. : +- 15.0

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

Edition Test cil

: 22,05,95 : ISO 4113

Combination No. : 0 409 866 183

Injection pump

Pump designation : PES6A100D320/3RS2763

EP type number : 0 410 806 006

Governor

Governer design. : RSV400...1100A0c2190

: -61R

: 0 420 233 300 Governer no.

Cust. part No. : 3921100

Customer—spec. information Customer : CDC : 6CT 8.3 Motor Power KW : 111.0

TEST BENCH REQUIREMENTS

Inlet line : 3.2

Test oil inlet

temp. °C 40 Tolerance °C : +- 2.0

: 1 417 413 047 Overflow valve

1.5 Inlet press. bar : : + 0.1 Tolerance bar

Test nozzle holde

: 1 688 901 101 assembly

Opening pressure

208.5 har Tolerance bar : +- 1.5

Test lines : 1 680 750 014

Outside diameter : 6.0

x inside diameter: 2.0 600 x length mm :

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values _____

BEGINNING OF DELIVERY

Test pressure bar: 17.0 Tolerance bar : + 1.0

: 2.85 : + 0.05 Prestroke mm Tolerance mm Check

tolerance mm : **←** 0.10

Rack travel in mm: 10.50 Tolerance mm : + 1.50

Firing order : 1-5-3-6-2-

: 4

Phasing : 0-60-120-180-240

: -300 Tolerance : +- 0.50

Check

tolerance *NW : **←** 0.75

Start of delivery mark

*NW after s.o.d. : 11.00 Tolerance : +- 0.50

Check

: ← 0.75 tolerance *NW

Barrel no. : 1

BASIC SETTING

Rated speed rpm : 1100

Rack travel in mm: 9.75

Tolerance mm : + 0.05

+	
Del. quantity + cm3/1000 strokes : 89.0 +	RATED SPEED
cm3/1000 strokes : + 1.0	rack travel mm : 8.70 Rated speed rpm : 1150 Tolerance 1/min : + 5
Check tolerance cm3/1000s. : + 3.0	rack travel mm : 4.00 Rated speed rpm : 1235
Spreed cm3/1000 strokes : 4.0	Tolerance 1/min : +- 5
Check tolerance cm3/1000s. : 6.5	rack travel mm : 0.85 Tolerance mm : + 0.55 Rated speed rpm : 1300
Rack travel in mm : 5.00 + Talerance mm : +- 0.10	rack travel mm : 4.00 Rated speed rpm : 1240
(B) SETTING OF INJECTION PUMP WITH GOVERNOR	LOW IDLE
	control lever position degree : 89.0
GUIDE SLEEVE POSITION	tolerance degree : + 4.0
Rated speed rpm : 800	Setting point w/out bumper spring
Rack travel in mm: 0.50 Tolerance mm: + 0.20	Rated speed rpm : 400 rack travel mm : 4.50
governor spring pre-tension	Testing:
click setting x : 4.50	Rated speed rpm : 400 rack travel mm : 5.00 Tolerance mm :+ 0.10
FULL LOAD DELIVERY AT FULL LOAD STOP	Total diloc iiiii
Rated speed rpm : 1100	Rated speed rpm : 100
Aneroid pressure + hPa : - +	CRT man min. :> 19.00
Del. quantity cm3/1000 strokes : 89.0 + cm3/1000 strokes : + 1.0 + 1.0	TORQUE CONTROL
Check tolerance cm3/1000s. : +- 3.0	Rated speed rpm : 1100 rack travel mm : 9.75
Spreed + cm3/1000 strokes : 4.0 +	Tolerance mm : +- 0.05
Check tolerance	Rated speed rpm : 750
cm3/1000s. : 6.5	rack travel mm : 10.80 Tolerance mm : + 0.10
CONTROL LEVER	
control lever position degree : 110.0 tolerance degree : + 4.0	FUEL DELIVERY CHARACTERISTICS

Aneroid pressure

hPa Rated speed rpm : 750

Del. quantity cm3/1000 strokes : 98.5 cm3/1000 strokes : \leftarrow 2.0

Check tolerance

cm3/1000s. : +- 4.0

BREAKAWAY

Rack travel in mm : 8.70 Rated speed rpm : 1150 _ Tolerance 1/min : + 5

STARTING FUEL DELIVERY

Rated speed rpm : 100 rack travel mm : 20.00 Tolerance mm : + 1.00 Del. quantity cm3/1000 strokes : 160.0

cm3/1000 strokes : +- 10.0

Check tolerance

: **←** 15.0 cm3/1000s.